Dual Streaming

H.264 Multiplex 4CH/8CH Network DVR

Support 3G/3.5G mobile phone/PDA

(Symbian/Windows Mobile/iPhone/Blackberry)

Support Mouse

User Manual

V1.5

CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER.
NO USER SERVICEABLE PARTS INSIDE.
PLEASE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING

TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE: This equipment has been tested and found to comply with the limits for a Class "A" digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the users will be required to correct the interference at their own expense.

FCC Caution: To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This Class A digital apparatus meets all the requirements of the Canadian Interference Causing Equipment Regulations.

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- UNAUTHORIZED DISASSEMBLE, REPAIR OR MODIFICATION OF THE PRODUCT BY THE USER;
- ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING OUT OF THE SYSTEM COMBINED WITH THE DEVICES OF THE THIRD PARTY;
- ANY CLAIM OR ACTION FOR DAMAGES, BROUGHT BY ANY PERSON OR ORGANIZATION BEING A PHOTOGENIC SUBJECT, DUE TO VIOLATION OF PRIVACY WITH THE RESULT OF THAT SURVEILLANCE-CAMERA’S PICTURE, INCLUDING SAVED DATA, FOR SOME REASON, BECOMES PUBLIC OR IS USED FOR THE PURPOSE OTHER THAN SURVEILLANCE.

PRECAUTIONS

- **Please refer all work related to the installation of this product to qualified service personnel or system installers.**
- **Do not operate the appliance beyond its specified temperature, humidity or power source ratings.**
  Use the appliance at temperatures between **0°C ~ +45°C** (**32°F ~ 113°F**) and humidity below **85%**.
  The input power source for this appliance is between **90 ~ 264 VAC**, **47 ~ 63 Hz**.
  Performance and lifetime of hard disk drives are easily affected by heat (used at high temperature). It is recommended to use this appliance at temperature between **+20°C ~ +30°C** (**68°F ~ 86°F**)
- **Handle the hard disk drives with care.**
  It is possible to damage them if they are moved while their motors are still running. Do not move them just after turning the power on or off (for around 30 seconds).
  Protect the hard disk drives from static electricity.
  Do not stack them or keep them upright.
  Do not use an electric screwdriver to fix them.
- Clean only with dry cloth.
- Do not block any ventilation openings.
- Do not use the appliance near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
- Protect the power cord from being stepped on or pinched particularly at plugs, convenient receptacles and the points where they exit from the apparatus.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Handle the appliance with care. Do not strike or shake, as this may damage the appliance.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the appliance body. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Please make a note of your settings and save them. This will help when you are required to change the system configuration, or when unexpected failure or trouble occurs.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the software provided with this product, is expressly prohibited.

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0. Quick Reference to Start this DVR and Change Notice

Please Refer to the Manual inside the CD for details, the hard copy is only for reference

What is inside the DVR package?

Please refer to Appendix E– What is inside the DVR package

Change Notice:

Please refer to **Appendix F– Change Notice· for details.**

Before Turning On The System

- Please install **SATA HDD** in the Hard Disk Tray. **(**Chapter 3.2 **and** Appendix B**)**
- Please refer to Chapter 3 for all connections.
- **To use the remote controller (**Chapter 2.3**)**

After Turning On The System

- Please wait for about 40 seconds for the system to start up.
- **Please login the system (**Chapter 4**), and then physically format the HDDs (**Chapter 4.3**). (Please note that the HDDs cannot be used for recording if they are not formatted yet.)**
- Please refer to Chapter 4 for all basic operations.
- Please refer to Chapter 5.2 to setup the system correctly, esp. for NTSC/PAL, Record Resolution, Time & Language.
- Please refer to Chapter 4.4 and Chapter 5.3 for recording setting.
- Please refer to Chapter 4.5, Chapter 4.6, Chapter 4.7 to search, playback, and archive the recorded video/audio.
- Please refer to Chapter 5.4.6/5.4.8 for motion Detection, Chapter 5.4.7 for Privacy Mask(Mosaic), and Chapter 5.6 for Alarm setting
- Please refer to Chapter 3.3 for PTZ camera connection, Chapter 4.8 and Chapter 5.4 to set up and control the PTZ cameras correctly.
- Please refer to Chapter 5.5 for Network Setting including DHCP/Static IP/PPPoE, ports no., DDNS and E-mail Server
- Please refer to Chapter 6 for remote access via internet or intranet from PC/Laptop
- Please refer to Chapter 7 for remote access via internet or intranet from mobile phone
- Please refer to Appendix A for the estimated recording time.
- Please refer to Appendix B and Appendix C for the compatible HDD/USB portable DVD Burner List

Login/Logout The System

- Logout : **MENU(Setting)** →SAVE→Logout
- Login: Power on or after Logout

Setup The System

- Format HDD : **MENU(Setting)** → <Maintenance> → <HDD Manage>→Click〖>>〗→ 【Formatting】to start HDD format..
- Change Language, Time, NTSC/PAL, Record Resolution, Password, User Auority : **MENU(Setting)** →<System>
- Setup PTZ: **MENU(Setting)** →<Camera>
- Setup Network: **MENU(Setting)** →<Net> →<Network> Static IP/DHCP, or **MENU(Setting)** →<Net> →<Next Page> for PPPoE/DDNS
- Change Network Port: **MENU(Setting)** →<Net> →<Network> for Http/Command/Media Ports, **MENU(Setting)** →<Net> →<Next Page> for Mobile Port
- Set up E-mail Server: **MENU(Setting)** →<Net> →<Network> →<Next Page>→<Next Page>

Basic Operations

- Change Split Window : CH1 ~ Ch4 / , or 1 ~ 8/ in the remote control
- Move Focus : ▲, ▼, ◄, ►
- **Search/Playback/Backup** : for faceplate/remote control, and for OSD, please refer to Chapter 4.5 Video playback and Chapter 4.6 Video Backup

Remote Access -> Before Logging On

- User's computer need download ActiveX components for web access at the first time connect to DVR. If user's Internet explorer prohibits the download action then please manually enable the download of un-signed ActiveX in IE.
- Download unsigned ActiveX controls→ Enable or Prompt
- Initialized and script ActiveX controls not marked as safe → Enable or Prompt
- If has upgraded this DVR for new version software, it is better to delete some components from the C:\WINDOWS\system32 of PC used to remote access this DVR by the batch command file "WebOcxClean.dat" inside the CD:\Multiplex H264 DVR Utility, **please close IE before run this batch command file.**

Remote Access -> IE Operations

- Please note that the PC user must have system administrator password for the PC; otherwise, the process will fail, and an error dialog will be shown.
  For the Windows 7/Vista, please turn off the UAC function – Chapter 6.2 Turn off UAC for Windows 7 and Vista, and source info: http://technet.microsoft.com/en-us/library/cc709691.aspx
- Please refer to Chapter 6 for details

Remote Access -> Mobile Player

- These DVRs have mobile player software for 3G/3.5G mobile phone/PDA(Windows Mobile/iPhone/Nokia/Blackberrry), please refer to 7. 3G/3.5G Mobile Phone/PDA Support for more details.
- For limited upload bandwidth of internet that DVRs connect, or limited streaming capability of some mobile phone/PDA, you have to adjust bandwidth of DVR to internet, please refer to 5.3.8 Dual Streaming for Network(Record- Advanced Setting) or 6.4 Device Parameters Settings - Channel→ Camera setting, Sub Bitstream, Subcode (from IE) for more details

1. Product Overview

1.1 Features

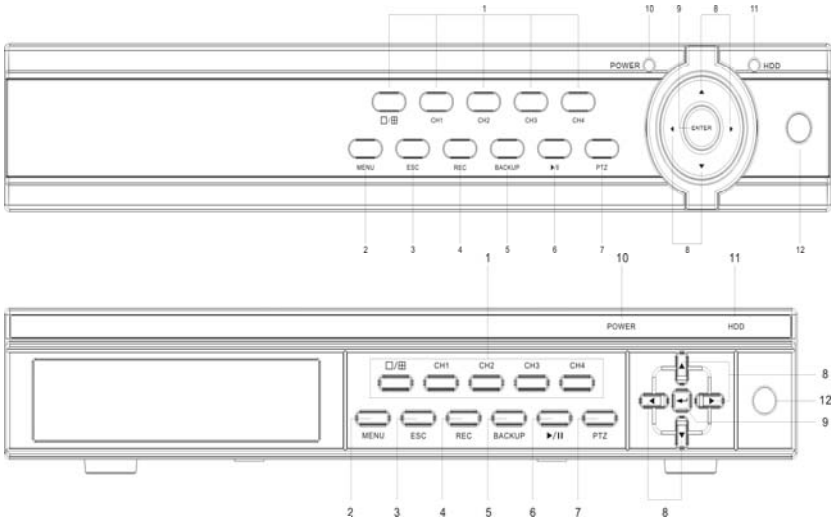
Model	4 Channel	8 Channel
Video Format	PAL/NSTC	
Video Compression	H.264 Baseline Compression	
Video Input	BNC 4 Input / 1 Output	BNC 8 Input / 1 Output
Video Main Output	BNC x 1 and VGA(maximum 1920 x 1080 resolution) display simultaneously	
Audio Compression	G.726 8Kx16bit ADPCM Mono	
Audio Input	RCA 4 Input / 1 Output	RCA 8 Input / 1 Output
Alarm Type	Motion detection, Sensor Input, Relay Output , Video Lost	
Sensor In/Out	4CH Input / 1CH Output	4CH Input / 1CH Output
Display Frame Rate	Each Channel PAL : 25 FPS, NTSC : 30 FPS	
Recording Resolution and Frame Rate	PAL : CIF 100FPS/352×288 Half D1 50FPS/704x288 D1 25FPS/704x576 NTSC:CIF 120FPS/352×240 Half D1 60FPS/704x240 D1 30FPS/704x480	PAL : CIF 200FPS/352×288 Half D1 100FPS/704x288 D1 50FPS/704x576 NTSC:CIF 240FPS/352×240 Half D1 120FPS/704x240 D1 60FPS/704x480
Playback Resolution and Frame Rate	1CH/4CH PAL : CIF 100FPS/352×288 Half D1 50FPS/704x288 D1 25FPS/704x576 NTSC:CIF 120FPS/352×240 Half D1 60FPS/704x240 D1 30FPS/704x480	
Record method	Power-on Auto Record, Schedule Record (Manual Record, Motion Detection, Sensor Trigger) Support Privacy Mask(Mosaic)	
Storage	SATA Interface support 2000GB	SATA Interface support 2000GB for each HDD, up to maximum 2 SATA HDDs(4TB) Internal SATA DVD Burner capability
Network Protocol	TCPIP/DHCP/DNNS/PPPoE/E-Mail	
Network Function	IE Browser Live Monitor, Configuration, Download Video, Playback, and Mobile Phone Surveillance	
USB 2.0 Interface	Mouse/Potable Mobile HDD/Flash Drive/DVD Burner/Firmware Upgrade	
Playback method	Normal Play, Fast Forward, Backward, Single Step	
Network Interface	RJ45 10M/ 100M Ethernet Auto Detect	
PTZ Protocol	PELCO-P ,PELCO-D, Samsung, Panasonic	
Video Backup	AVI, MPEG4 or H.264 Raw for USB Flash Disk MPEG4 format for internal or USB DVD Burner	
Power Adapter	DC 12V Adapter/3.5A	
consumption	10~15W	30W
Temperature	10℃~+40℃	
Humidity	10%~90%	
Dimension	315(W) x 224 (D) x 52 (H) mm	436(W) x 339 (D) x 55 (H) mm, or 430(W) x 330(D) x 88(H) mm(special

Model	16 Channel
Video Format	PAL/NSTC
Video Compression	H.264 Baseline Compression
Video Input	BNC 16 Input / 1 Output
Video Main Output	BNC x 1 and VGA(maximum 1920 x 1080 resolution) simultaneously
Audio Compression	G.726 8Kx16bit ADPCM Mono
Audio Input	RCA 16 Input / 1 Output
Alarm Type	Motion detection, Sensor Input, Relay Output , Video Lost
Sensor In/Out	16 Inputs/ 4 Outputs(NC, NO relay)
Display Frame Rate	Each Channel PAL : 25 FPS, NTSC : 30 FPS
Recording Resolution and Frame Rate	PAL : CIF 400FPS/352×288 Half D1 200FPS/704x288 D1 100FPS/704x576 NTSC:CIF 480FPS/352×240 Half D1 240FPS/704x240 D1 120FPS/704x480
Playback Resolution and Frame Rate	1CH/4CH PAL : CIF 100FPS/352×288 Half D1 50FPS/704x288 D1 25FPS/704x576 NTSC:CIF 120FPS/352×240 Half D1 60FPS/704x240 D1 30FPS/704x480
Record method	Power-on Auto Record, Schedule Record (Manual Record, Motion Detection, Sensor Trigger) Support Privacy Mask(Mosaic)
Storage	SATA Interface support 2000GB for each HDD, up to maximum 2 SATA HDDs(4TB), or 4 SATA HDDs(8TB) optional(only for special 16CH version) Internal SATA DVD Burner capability
Network Protocol	TCPIP/ DHCP/DNNS/PPPoE/E-Mail
Network Function	IE Browser Live Monitor, Configuration, Download Video, Playback, and Mobile Phone Surveillance
USB 2.0 Interface	Mouse / Portable Mobile HDD/ Flash Drive/Portable DVD Burner/ Firmware Upgrade
Playback method	Normal Play, Fast Forward, Backward, Single Step
Network Interface	RJ45 10M/ 100M Ethernet Auto Detect
PTZ Protocol	PELCO-P ,PELCO-D, Samsung, Panasonic
Video Backup	AVI, MPEG4 or H.264 Raw for USB Flash Disk MPEG4 format for internal or USB DVD Burner
Power Adapter	DC 12V Adapter/6A, or 90~264V AC47~63Hz(special 16CH version with 4 SATA HDDs)
consumption	30W, or 230W(special 16CH version with 4 SATA HDDs)
Temperature	10℃~+40℃
Humidity	10%~90%
Dimension	436(W) x 339 (D) x 55 (H) mm, or 430(W) x 330(D) x 88(H) mm(special 16CH version with 4 SATA HDDs)

2. Panels and Remote Controller

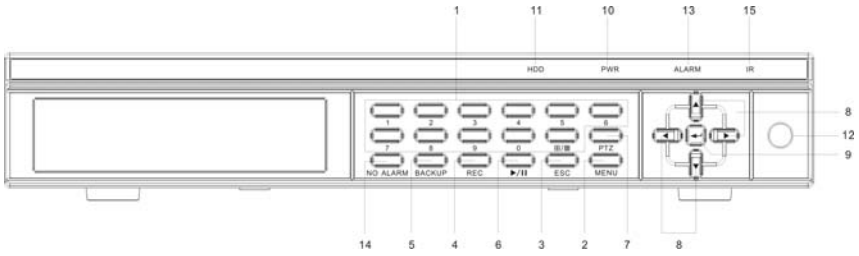
2.1 Front Panel (Please take actual front panel as quasi-):

4CH DVR

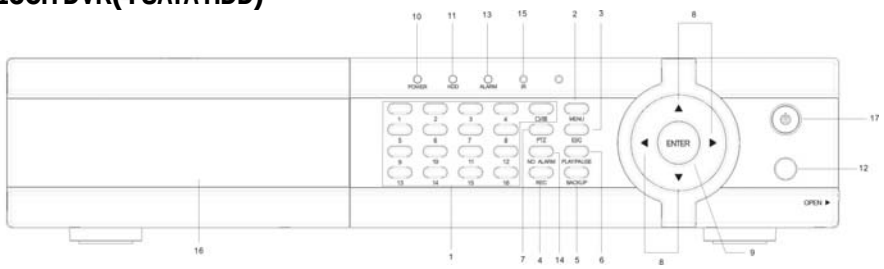


1. **CH1 ~ Ch4 /** □/⊞
   Direct switch to single camera window or 4 camera windows
   □/⊞ Start and Stop time setting of playback or back up in schedule record(Chapter 4.5 Video Playback), or 5.4.6 Motion/5.4.7 Privacy Mask setting(Mosaic) setting, or 5.3.2 Record Schedule/5.6.4 Alarm Schedule setting
2. **MENU**
   Press this button to display the main menu.
3. **ESC**
   Exit window or switch the tool bar(main menu) and status bar
4. **REC**
   Start or Stop manual record function.
5. **Backup**
   Open video search and backup menu
6. **Play/Pause (▶/Ⅱ)**
   Open video search and playback menu. press to pause playback.
7. **PTZ**
   Open camera selected with PTZ operation menu.
8. ◀, ▶, ▲, ▼
   Arrow Buttons. Press ◀, ▶ to move to selection box, press ▲, ▼ to select submenu parameters.
9. **Enter**
   Confirm operation.
10. **Power LED**
11. **HDD LED**
12. **IR Window**

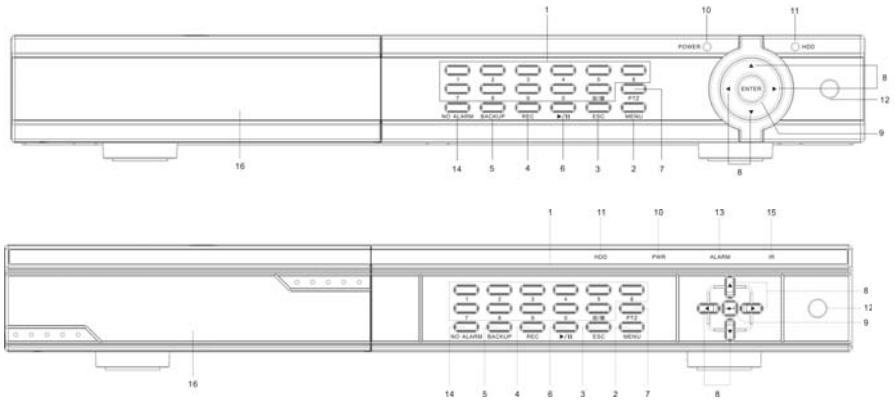
8CH DVR



16CH DVR(4 SATA HDD)



8/16CH DVR(2 SATA HDD)



Key buttons 2 ~ 12 are same as 4CH DVR, except:

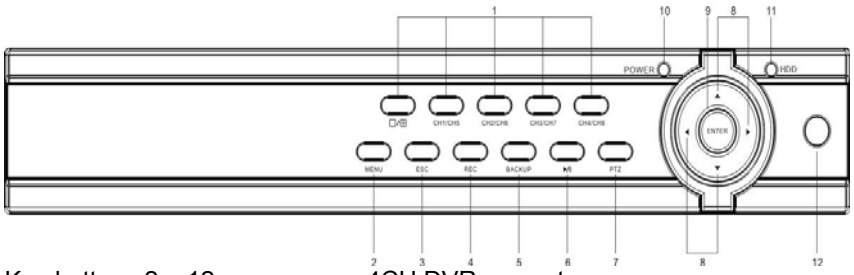
1. **CH1 ~ Ch16 /** ⊞/⊞
   Press these buttons for camera selection, and display switch between single camera window or multiple camera windows display
   For 16CH DVR, please press 0, 1, 2, 3, 4, 5, 6 twice for CH10 ~ CH16 display

⊞/⊞ Start and Stop time setting of playback or back up in schedule record(Chapter 4.5 Video Playback), or 5.4.6 Motion/5.4.7 Privacy Mask setting(Mosaic) setting, or 5.3.2 Record Schedule/5.6.4 Alarm Schedule setting

13. **ALARM LED:** indicate alarm happened
14. **NO ALARM:** Cancel Alarm and Buzzer
15. **IR LED**

8CH DVR with complex key combination

16CH DVR(4 SATA HDD)

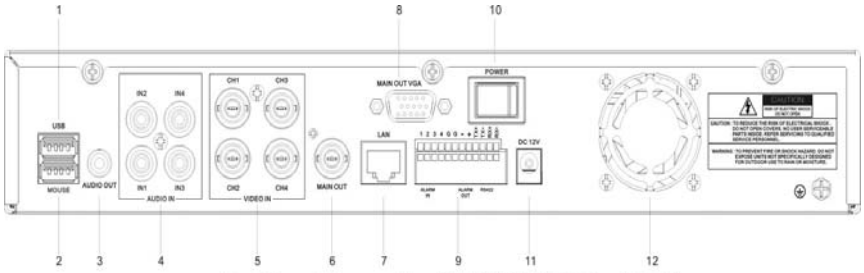


Key buttons 2 ~ 12 are same as 4CH DVR, except:

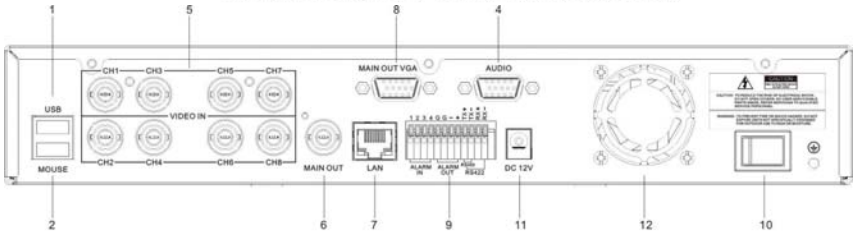
1. **Complex keys - CH1/CH5, CH2/CH6, CH3/CH7, CH4/CH8,** ⊞ / ⊞ Channel 1/Channel 5, Channel 2/Channel6, Channel 3/Channle 7, Channel 4/Channel 8 toggle switch button, and also button switch between 1/9 camera windows

   ⊞ / ⊞ Start and Stop time setting of playback or back up in schedule record(Chapter 4.5 Video Playback), or 5.4.6 Motion/5.4.7 Privacy Mask setting(Mosaic) setting, or 5.3.2 Record Schedule/5.6.4 Alarm Schedule setting

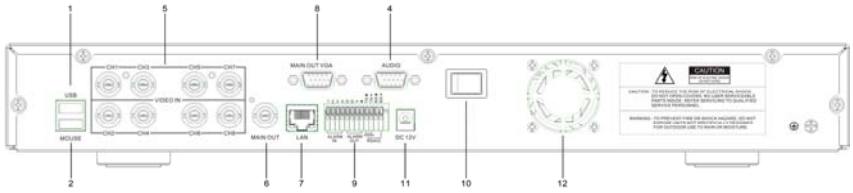
2.2 Back Panel



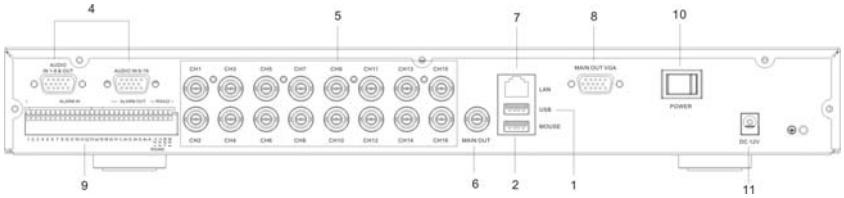
Back Panel diagram for 4CH H264 DVR(1xfixed HDD)



Back Panel diagram for 8CH H264 DVR(1xfixed HDD)



Back Panel diagram for 8CH H264 DVR(2xHDD, DVD Burner Capability)



Back Panel diagram for 16CH H264 DVR(2xHDD or 4xHDD, DVD Burner Capability)

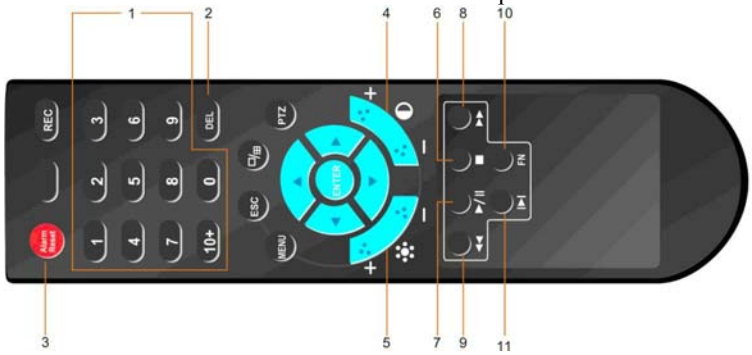
1. **USB connector**
   Connect backup devices like flash drive, portable HDD or DVD burner
2. **Mouse Connector**
   Connect USB mouse.
3. **Audio Output Connectors**
   1 channel audio output, RCA (2Vp-p,600Ω) for 4CH DVR
4. **Audio Input Connectors (AUDIO IN 1-4/1-8/1-16)**
   4 channel audio input, RCA (2Vp-p,600Ω) for 4CH H264 DVR; or connector for 8CH H264 DVR to connect Audio cable(8CH Audio Input+ 1CH Audio Output)
   Connectors for 16CH H264 DVR to connect Audio cable(AUDIO IN 1-8 & Out, and AUDIO IN 8-16)
5. **Video Input Connectors (1-4/1-8/1-16)**
   4, 8 or 16 channel video input, BNC (1Vp-p,75Ω)
6. **Video Main Output Connector**
   DVR system screen output, BNC (1Vp-p,75Ω)
7. **Ethernet Connector**
   RJ-45 10/100 Base-T Ethernet network.
8. **VGA Connector (optional for 4CH)**
   Connect VGA/LCD monitor
9. **Alarm Input Connectors (ALARM IN 1-4, 5-6 Ground)**
   Connect to external sensor device
   Alarm Output Connectors (ALARM OUT 7-8)
   Connect to external sensor device
   RS-422 Connector (9-12)
   RS-485 Connector (9-10, TX+, TX-)
   Support PTZ camera control

   16CH DVR:
   Alarm Input Connectors (ALARM IN 1-8, Ground, 9-16, Ground)
   Connect to external sensor device
   Alarm Output Connectors (ALARM OUT 1+, 1-, 2+, 2-, 3+, 3-, 4+, 4-)
   Connect to external sensor device
   RS-422 Connector (TX+, TX-, RX+, RX-)
   RS-485 Connector (TX+, TX-)
   Support PTZ camera control

10. **Power Switch**
11. **Power Input Socket (12V DC)**
12. **Fan: 16CH DVR on the side**

2.3 Remote Controller

The remote controller is an accessory to ease the user's operations. You can do all the operations by the remote controller instead of the buttons on the front panel.



1. **Alpha-numeric Buttons (1-9, 0, 10+)**
   Press these buttons for camera selection in most circumstances. These buttons can also be used to enter text and number
2. **DEL Button (DEL)**
   In text editing mode, this button is used as "del" key.
3. **Alarm Reset Button**
   Press this button to cancel alarm activation; click this button will pop a message to show the present alarm information.

4. **Contrast Button**
   Adjust image contrast up(+)/down(-).
5. **Brightness Button**
   Adjust image brightness up(+)/down(-).
6. **Stop Button (■)**
   Press this button to stop the playback.
7. **Play/Pause Button (▶/❚❚)**
   Press this button to search and play the recorded images, or pause the playback.
8. **Fast Forward Button (▶▶)**
   Press this button for fast forward playback.
9. **Fast Backward Button (◀◀)**
   Press this button for fast backward playback.
10. **Function Key(FN)**
    Start time and Stop time setting of playback or back up in schedule record(Chapter 4.5 Video Playback), or 5.4.6 Motion/5.4.7 Privacy Mask setting(Mosaic) setting, or 5.3.2 Record Schedule/5.6.4 Alarm Schedule setting
11. **Single Step Button (▶❙)**
    Press this button to play the recorded images frame by frame.

The Other Buttons

Each of the other buttons corresponds to one of those buttons on the front panel. Please refer to the descriptions in Section 2.1. Front Panel

3. Hardware Installation

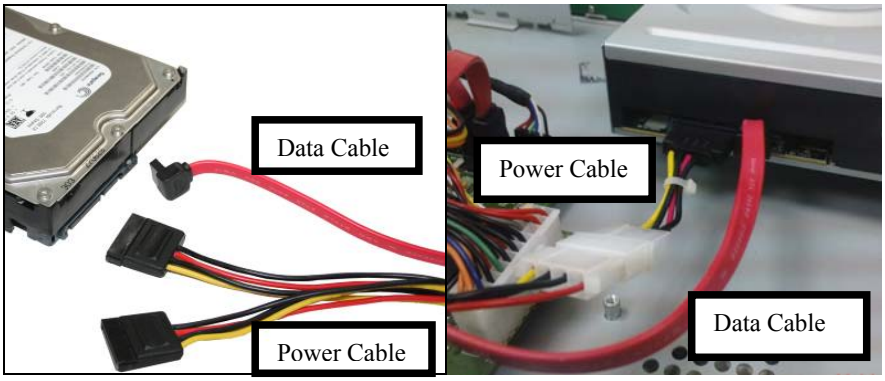
3.1 Basic Connections

- **Cameras**
  Connect the camera output to video input connector in real panel of the DVR.
  The video input interface is standard BNC connector, 1Vp-p, 75 Ω.
- **Audio Connector**
  The audio input interface is standard RCA socket, 2Vp-p, 600 Ω.
  The **audio input resistance is a little bit high; please use active sound collection device or active microphone**.
  And the audio signal cable should keep away from the interference of strong electromagnetism and electric field.
- **Monitor**
  Connect the main output connector to a monitor. Use BNC-to-RCA connector to work with Audio/Video RCA cable.
- **Power**
  Use adapter come along with DVR, plug $12V_{DC}$ output connector into the power socket.
- **Alarm Input/output**
  Please refer to Chapter 5.6.2.
- **Ethernet**
  Connect the Ethernet connector to a standard twisted-pair Ethernet cable for remote access via LAN or internet
- **USB 2.0**
  Support Mouse, USB Flash Drive, USB portable HDD, USB portable DVD Burner.
  Only support FAT32 file system.

3.2 Hard Disk and internal DVD Burner Install

HDD must be formatted by DVR system before it can be used to record.
PS. Do not format HDD by PC, it will cause incompatibility.
Please refer to Section 4.3 Format HDD to format the HDD.

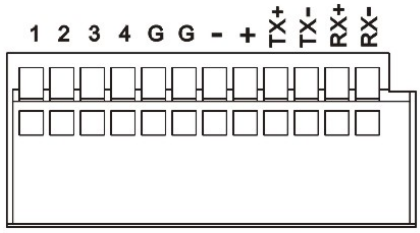
There are usually power cable and data cable with the DVD Burner you buy, connect to our DVR as follows(right):



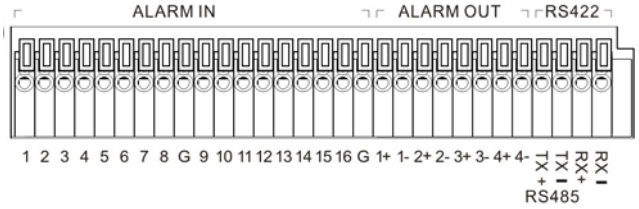
3.3 PTZ Control Connections

Connect the PTZ control interface to RS485 T_X+ and T_X- interfaces of rear panel.

4/8CH DVR



16CH DVR

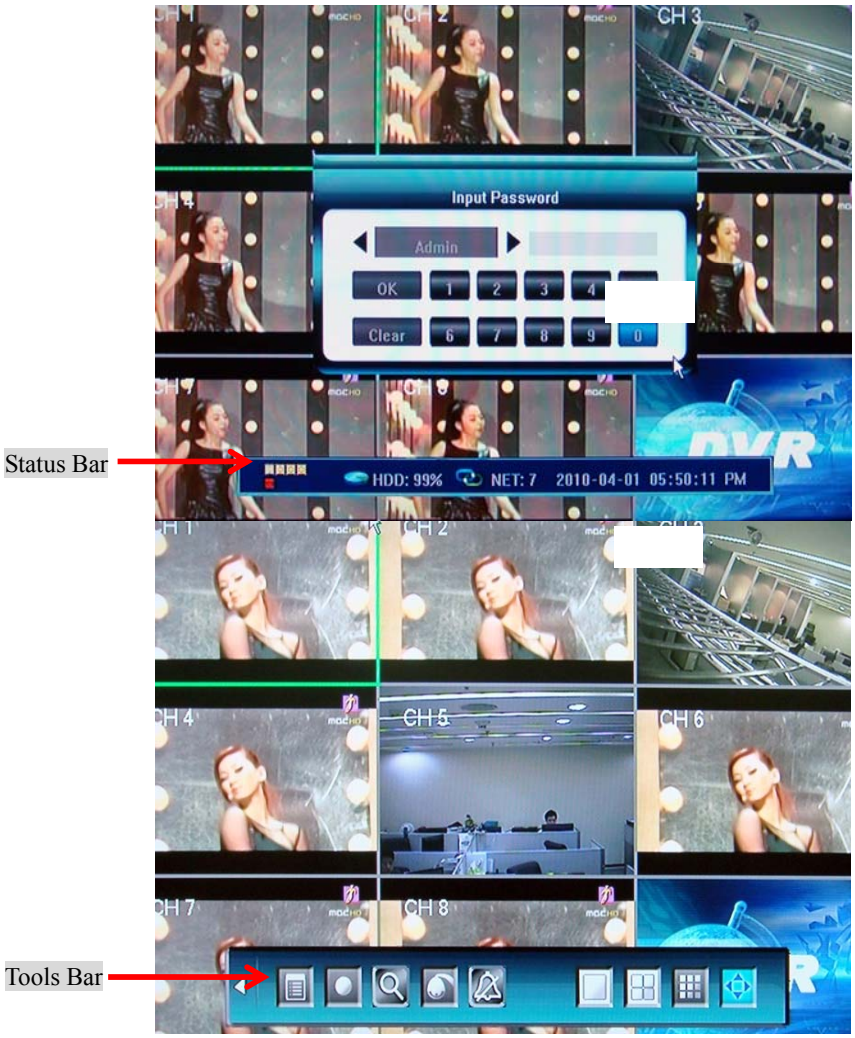


Please refer to PTZ setting section for 5.4.2 ~5.4.4 PTZ protocols, baud rates and IDs

4. Power-on DVR and Quick Start

Power-on the DVR and wait for system program loading. The DVR will buzz and “NO Hard Disk” appears when no hard disk installed in DVR.
First window will request to select user account and password to operate DVR system.

Default password of Admin is [888888] User is [666666]



DVR system status bar at the bottom of the screen. Right-click mouse key or press 【Enter】at front panel will open 【Tools Bar】for system setting and operating.

4.1 Live View Screen(Status Bar)

- **Single Channel display**

  When in 4/9/16 split view modes, the window with highlight **green border** is the current selected one. User can use mouse or press 【Direction】 buttons to switch to another channel. If the audio output device is connected, the audio can also be monitor together with video. User can select to display a single particular channel by pressing the corresponding 【Numbers】buttons 1~8 or 0~9.

  When in single split view mode, user can enter into 4/9/16 splits view mode by pressing □/⊞ or

/ button directly, or reverse.

◆ **Channel Status Display**

Indication of "motion detection" / "common recording" / "alarm recording" and etc. will be displayed on the right upper corner of each split screen. The details are as follows:

Indicates " motion detection" .

Blue indicates " common recording"

Green indicates " motion detection triggered recording"

Red indicates " alarm triggered recording"

Grey indicates " manual recording"

◆ **Peripheral alarm input / alarm output/HDD/Network display**

Indication will be displayed on system status bar:

4/8CH

16CH

The four icons(8CH) or 16 icons(16CH) indicate the alarm input status. When happened, it changes into red color

4/8CH

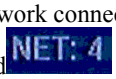
16CH

The last icon(8CH) or four icons(16CH) indicates alarm output. When happened, it changes into red color.

4/8CH

16CH

HDD normal(blue) HDD Failure(red) Network connected(blue) Network disconnected(gray)

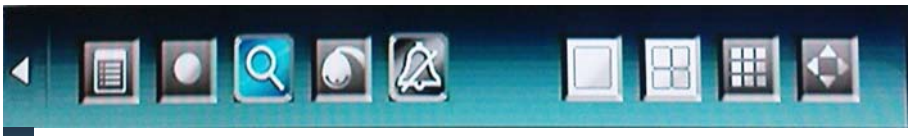
HDD percentage recorded 

No. of cameras network connected

Hard Disk Overwrite

4.2 Main Menu(Tools Bar)

Right click mouse or press 【Enter】 button in preview mode, the Tool Bar shown as below will appear:



: Hide the tool bar.

: System configuration

: Manual record

: Search, playback and backup record files

: PTZ operation

: Cancel alarm notification. Click this button will pop a message to show the present alarm information.

: To switch screen display mode - “Single camera” → “Quad 4 camera” →”9 camera” →”16 camera”

: To adjust the screen, 8 pixels per unit can be adjusted as follows:

: To reduce or increase screen in vertical direction.

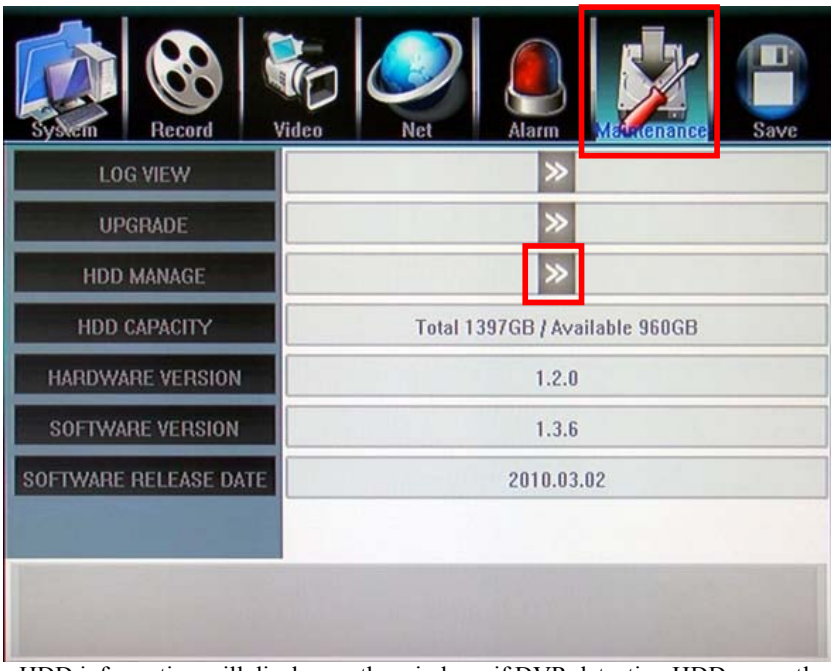
: To reduce or increase screen in horizontal direction.

: To move the screen up, down, left, right

: To zoom out the screen to largest and show in central.

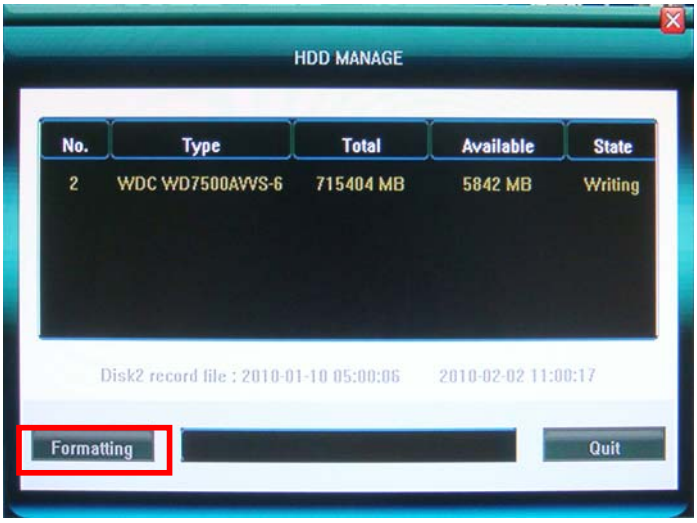
4.3 Format HDD

Login DVR system as【Admin】account.
Select <Tool Bar> → <Setting> → <Maintenance> → <HDD Manage> item.
Click〖>>〗to open HDD Mange window.



HDD information will display on the windows if DVR detection HDD correctly.

Click 【Formatting】to start HDD format.



4.4 Video Record

There are two methods to precede record in DVR, **manual record** and **schedule record**.
The priority of manual record is higher than schedule. If the record schedule is conflict with manual record, the manual record will be processed firstly until the manual record being canceled. Record types include "common recording" / "alarm triggered recording" / "motion detection triggered recording" / "alarm & motion detection triggered recording", the following indications will be displayed on the right upper corner of each split screen:

- Blue indicates " common recording"
- Green indicates " motion detection triggered recording"
- Red indicates " alarm triggered recording"
- Grey indicates " manual recording"

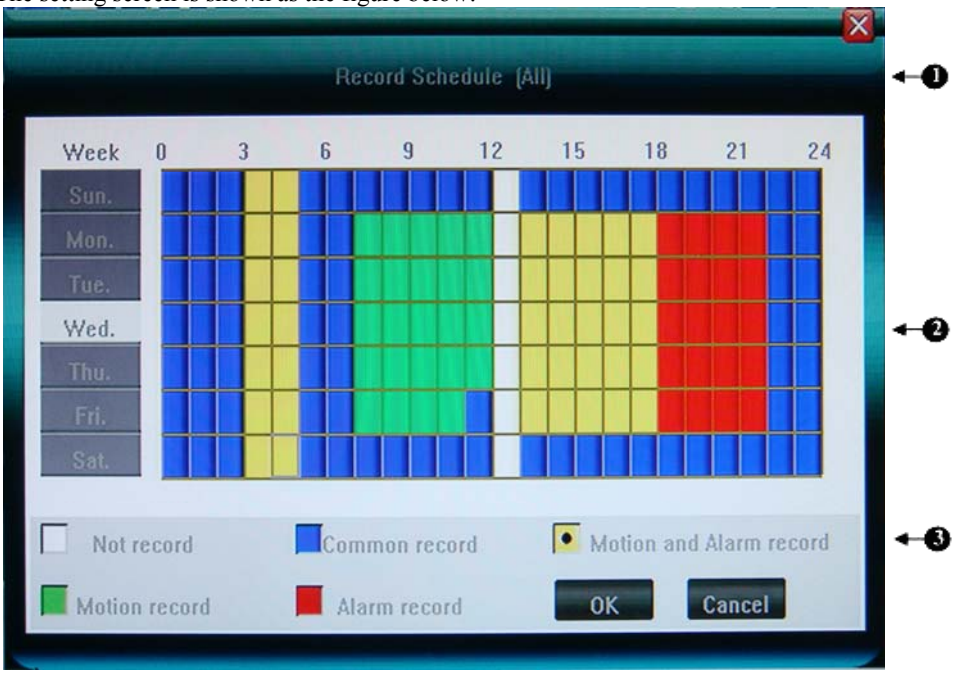
◆ Manual Record

Please select <Tool Bar>→<Manual Record> to let the specific channel record or not. Press【●】 button to start/stop recording manually.

The video recorded manually is named "common recording"

◆ Schedule Record

Please select <Tool Bar> → < Setting > → <Record> → < Record Schedule> to set.
The setting screen is shown as the figure below:



① . The current recording channel number

② . The record schedule

③ . Description of record type

System provides a recording option for 24 hours every day and Sunday through Saturday every week. Unit is

hour. One grid indicates one hour.

Move highlight icon to a time grid using 【Direction】 buttons.

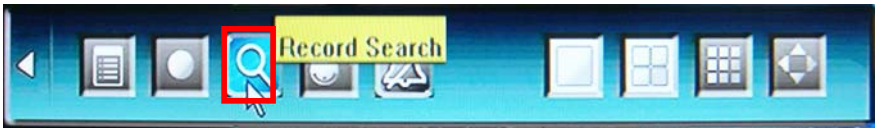
Specify the recording type by repeat pressing 【Enter】 button or double left clicking mouse,(the color of the grid will change relevantly).
Select OK to confirm settings. **The settings will take effect after being saved.**

For the detailed operations, please refer to **5.3.2 Record Schedule**

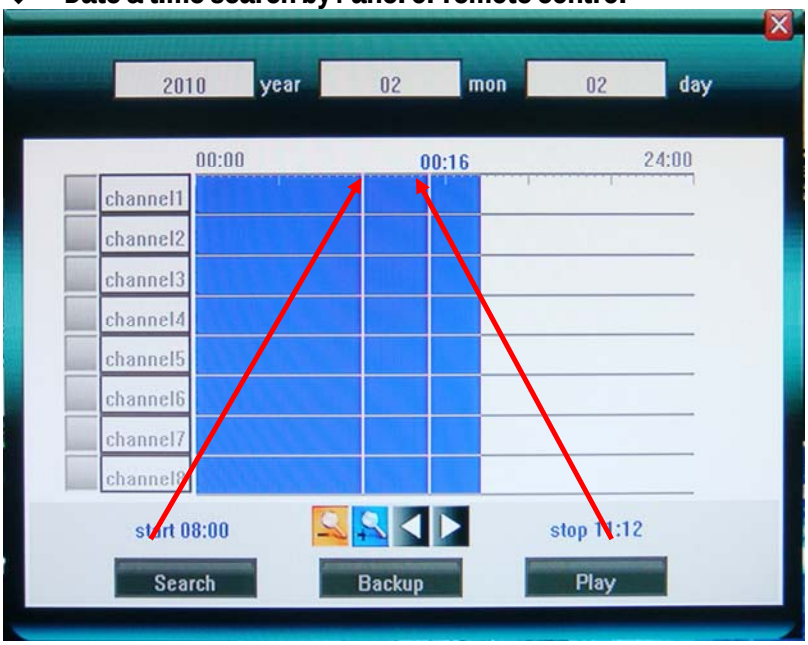
When motion detection & alarm recording is selected, the motion detection sensitivity and area should be set ahead. Please refer to 5.4.6 Motion Detection Settings for details.
When alarm recording is selected, the alarm triggering settings should be set ahead. Please refer to 5.6.3 Event Handling for details.

4.5 Video Playback

Specify the date/time and channel number by selecting <Tool Bar>→<Record Search>.
The searching results will be list on the screen in responding different colors so as to distinguish different record types.



◆ **Date & time search by Panel or remote control**



In order to playback a certain video feed from a particular camera, you first need to indicate what time and which camera you wish to receive this information from.

Move highlight icon to relevant selection box using 【◀】, 【▶】 buttons.

Move highlight icon to date/time selection box, modify time using 【▲】, 【▼】 buttons. Move highlight icon to channel selection box, press 【Enter】 button to select it or cancel selection.

After setting time, channel number , move highlight icon to Search using 【◀】, 【▶】 buttons, and press 【Enter】 button to start searching recorded video.

Move highlight icon to , press 【Enter】 button to zoom in/zoom out timeline.

If the timeline is out of screen, please move highlight icon to and press 【Enter】 button to display the part out of screen.

After searching over, by remote control, press【FN】button will move to timeline to select start time, then press 【FN】 button again to select stop time, after that, press 【FN】 button to finish the setup; **by or button of faceplate to select start/stop time as 【FN】 above.**.

The available recordings will be represented by differently colored bars on the time line depending on the type of the recording (Blue: common recording, Green: motion detection triggered recording, Red: alarm triggered recording, Grey: manually made recording).

After all settings, move highlight icon to Play using 【◀】, 【▶】 buttons, and press 【Enter】button to start playing.

◆ Date & time search by Mouse

User can mouse click to specify time. First left-click on timeline will mark 【start time】 and there will have a vertical line show up , second left-click will mark 【stop time】. Mouse right-click will clear all marked time.

◆ Playback Control

: Back backwards, the available speeds are 8X, 16X

: Fast forward, the available speeds are 2X, 4X, 8X, 16X, 1/8X, 1/4X and 1/2X.

: Pause

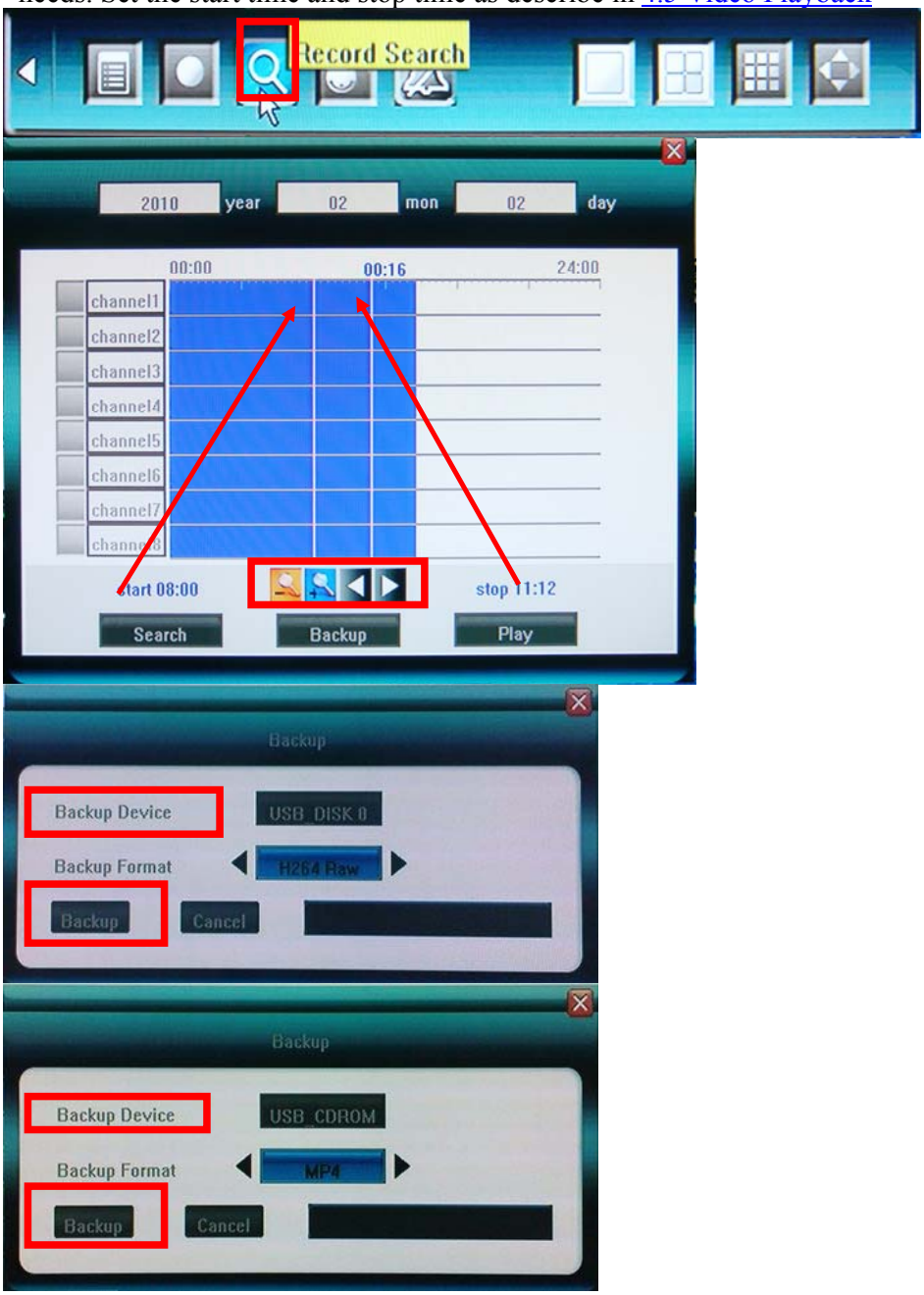
: Stop playing.

: Go to next frame.

: Click to switch from single camera to 4/9/16 camera.

4.6 Video Backup

Select <Tool Bar>→<Record Search> to search, backup and playback the specific record files you needs. Set the start time and stop time as describe in 4.5 Video Playback



Click [Backup] to enter into the backup screen. System will detect all the backup devices available and display them.
Backup device can use USB flash drive, USB portable HDD and USB DVD Burner.

Only support FAT32 file system for USB flash and HDD

Please select the suitable device and record type according to requirement first, and click [Backup] to start save audio/video. If there is no backup device found, a prompt tip will appear to remind users of connecting USB device well.

The types of record video back up include **H.264 Raw, MPEG4** and **AVI** for **USB Flash Drive** and **portable**

HDD(need external power supply), and only **MPEG4** can be backed up for **USB DVD Burner; when backup in MPEG4 types, the special video decoder components WMP_MediaFilter.rar will also be backed up together automatically.** After it is decompressed and installed, the stored MPEG4 video files can be playback only by **Windows Media Player.**

4.7 Play Backup Video on PC

For MPEG4 video format playback, you must install decoder component for Windows Media Player. User can find the compressed files "**WMP_MediaFilter.rar**" inside the backup devices. Uncompressed the "**WMP_MediaFilter.rar"** and execute "**InstallFilter.bat**" to install the decoder component, you can playback MPEG4 file by Windows Media Player.

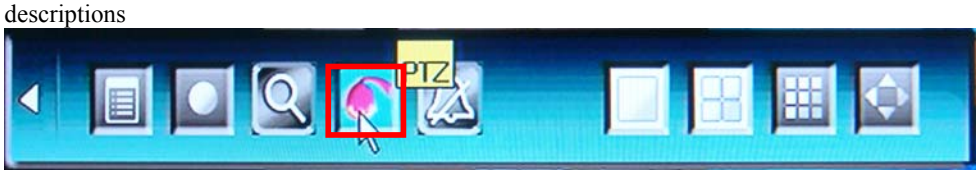
Please note you don't have to install this component for playback every time, it is one time installation; or you can use the **"MP4Player" to play back MPEG4 format, please refer to Utility inside the CD of this package(Appendix D).**

For H264 video format playback, you may go to www.videolan.org/vlc to download vlc binaries player according to your operation system, but must rename the stored video file from *.264 to *.h264.

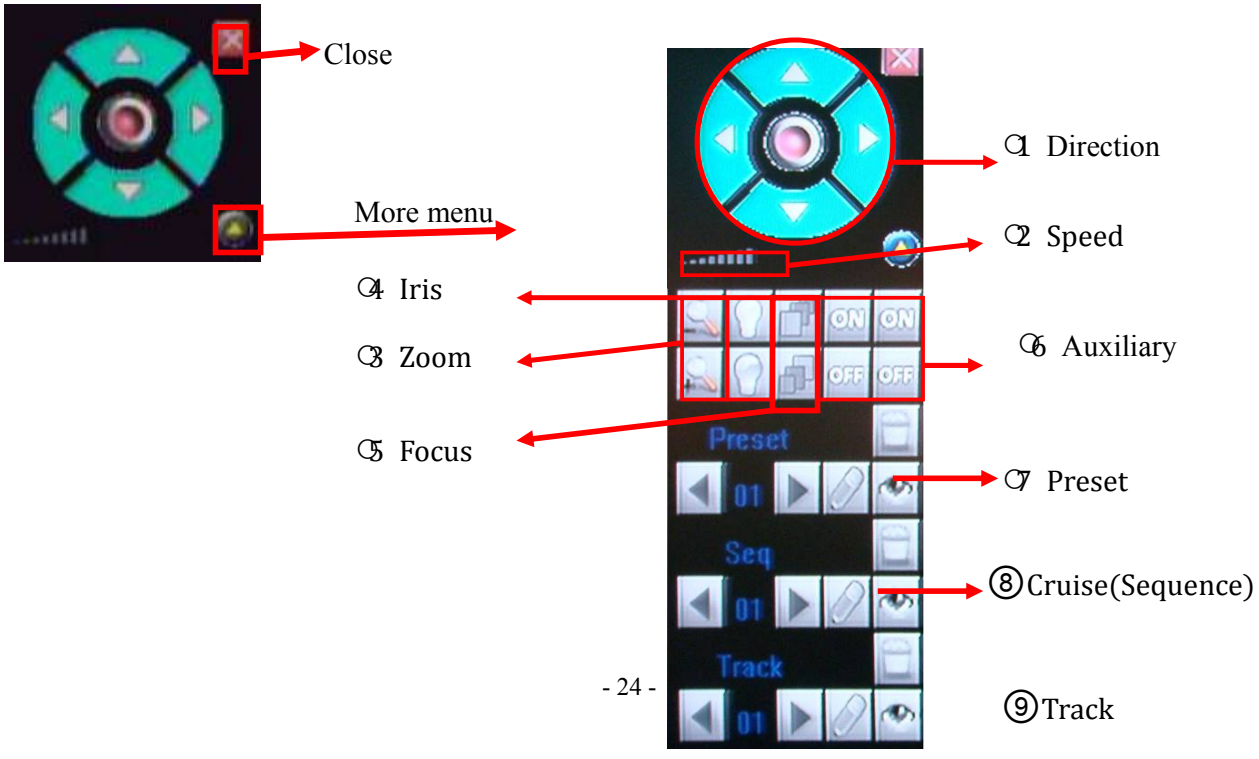
4.8 PTZ Control

◆ Local Operate

Select single camera view and press <PTZ> button in front panel. Press direction key to move highlight and press <Enter> to set the action. Press icon to open more menu, and please refer to next page for functions descriptions



Mouse operation is quite easy for PTZ control, just click and move, by remote control or keypad, should press "Enter" key after any function keys such as ◀, ▶, ▲, ▼ pressed to make it active.

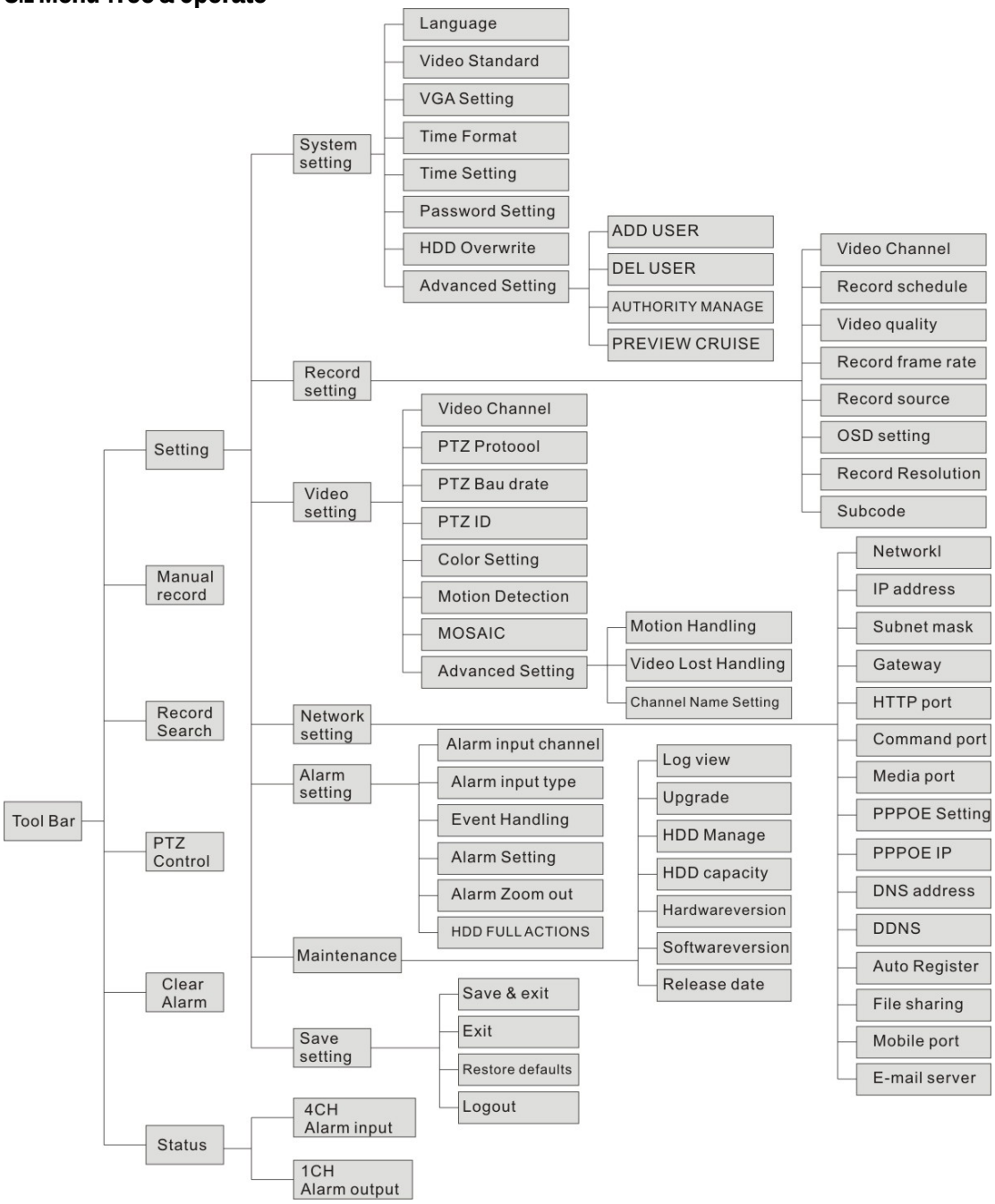


Internet explorer web browser Operate

NO.	Name	Description
①	Direction	Click the arrow icons to control direction of PTZ. Click the center icon to call sequence or run scanning. Please refer to the PTZ manual for details of PTZ scanning mode.
②	Speed	Set the turning speed of PTZ camera.
③	Zoom	Click to zoom in/zoom out (it is disabled for cameras with automatic focus).
④	Iris	Click to make the image brighter or darker (it is disabled for cameras with automatic iris adjustment).
⑤	Focus	Click to focus-in and focus-out (it is disabled for cameras with automatic focus).
⑥	Auxiliary	Open/close auxiliaries. Click to open and click to close. Different functions respond to different protocols. The auxiliaries include light, rain brash, and power etc. please refer to PTZ manual for details.
⑦	Preset	**Preset** is to set camera position, focus, zooming, and iris position, and then mark them in numbers for later calling. 1. Select the preset number you want to name as. 2. Position the camera as desired position including direction, focus, iris and zoom value. 3. Click on the set button. **call preset:** 1. Select the preset number you want to call. 2. Click on the go-to button. **Clear/reset preset:** Select the preset number you want to clear/reset. Click on the clear button.
⑧	Cruise (Sequence)	Cruise is a running route of camera that passes through multiple presets. **Set sequence:** 1. Select preset number you want to call. 2. Click on set button . 3. Repeat step 1 and 2 to add the other presets till finishing. 4. Click on run button . **Clear sequence**: Click on button to clear sequence.
⑨	Track	Track is a continuous running route of camera. **Set track**: 1. Click on to start setting. 2. Move camera as the track and pattern you want it to run. 3. Click on again to finish setting. 4. Click on to run track and click again to stop running. NOTE: Whether Track is supported or not is depending on the type of PTZ.

5. DVR Setting

5.1 Menu Tree & Operate



◆ **General Operations**

Press 【MENU】 button to enter into system setting screen.
Press 【●】 button to start/stop recording manually.
Press 【▶□】 button to play record file.
Press【PTZ】 button to enter into PTZ control screen.

◆ **Menu Selection**

The highlight menu is the current active one. User can move highlight icon to the menu needed using 【◀】, 【▶】 button, and press 【Enter】 button to confirm selection, or press 【ESC】to return to upper menu.

◆ **Menu Operation**

Use 【▲】, 【▼】to move highlight for configure items. Press 【◀】, 【▶】button to change parameter. Use mouse to input via on-screen keyboard or input value from remote controller.

Press【>>】open sub menu, and 【ESC】return upper menu.

◆ **Save/Exit**

User can click × button on the right upper corner, or single right click mouse, or press【ESC】button to enter into the Save & Exit screen. You can select exit directly or exit after being saved.

5.2 System Setting

5.2.1 Language

Change DVR menu text and OSD language depend upon your requirement.
****Take effect immediately ****

5.2.2 Video Standard

Change DVR and camera video system, NTSC or PAL system.
****Take effect after being saved. ****

5.2.3 VGA Setting

Switch different VGA output resolution, there are 800x600@60Hz, 1024x768@60Hz
1280x1024@60Hz, 1440x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@60Hz

5.2.4 Time Format

Switch time format between 12-Hours or 24-Hours.
****Take effect immediately ****

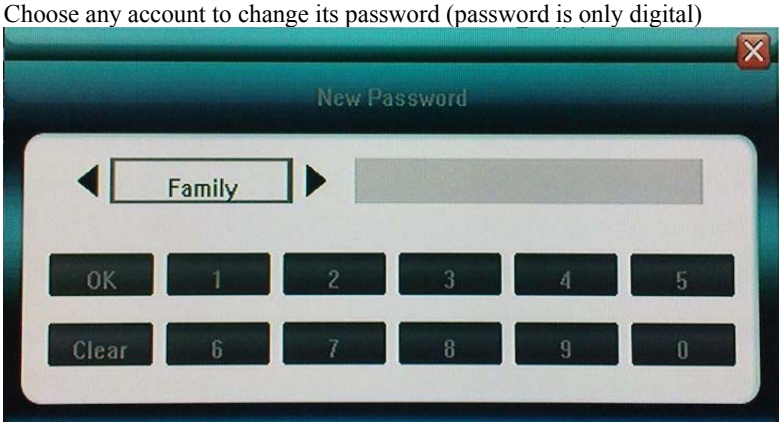
5.2.5 Time Setting

Adjust date and time of DVR.
****Take effect immediately ****

In order to avoid record files' time confusion, you'd better stop recording before modifying system time

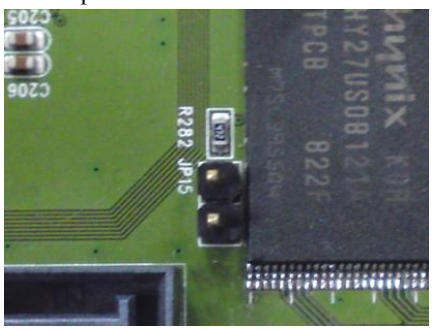
5.2.6 Password Setting and what if forgotten

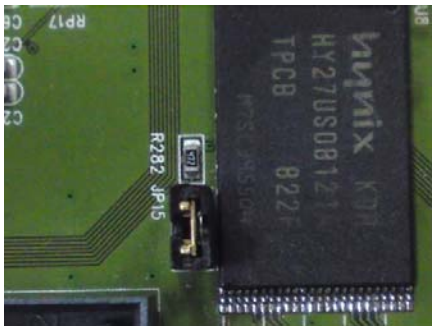
Choose any account to change its password (password is only digital)



Default password of Admin is [888888] User is [666666]

If password forgotten, turn off the machine, open this DVR case, find the JP15 jumper, it is near the faceplate; power on the machine, find some jumper cap to make it closed(short) and hold it until "beep" sound heard, it will return back to default password of "Admin" and "User" account.





5.2.7 Hard Disk OVERWRITE

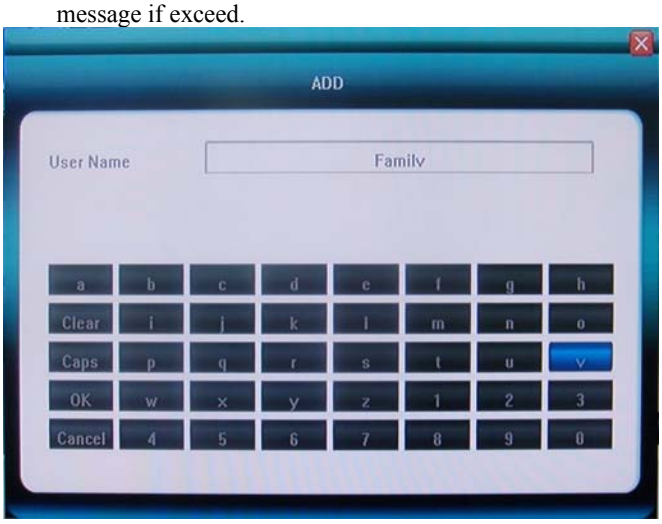
Set up hard disk full action – over write(ON) or stop recording(OFF)

5.2.8 Create/Delete User Account, Assign its authorities and SEQ Display(Preview Cruise):

Click "Advanced Setting" of "System", enter the following setup:

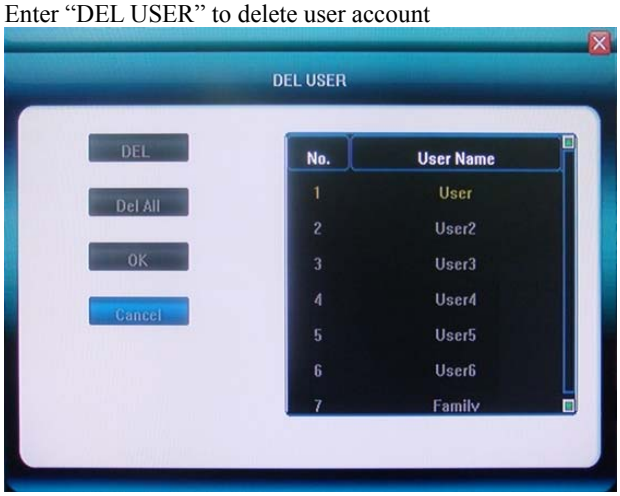
◆ Add User Account

Enter “ADD USER” to add user account, most 7 users accounts can be produced, and there will be warning message if exceed.



◆ Delete User account

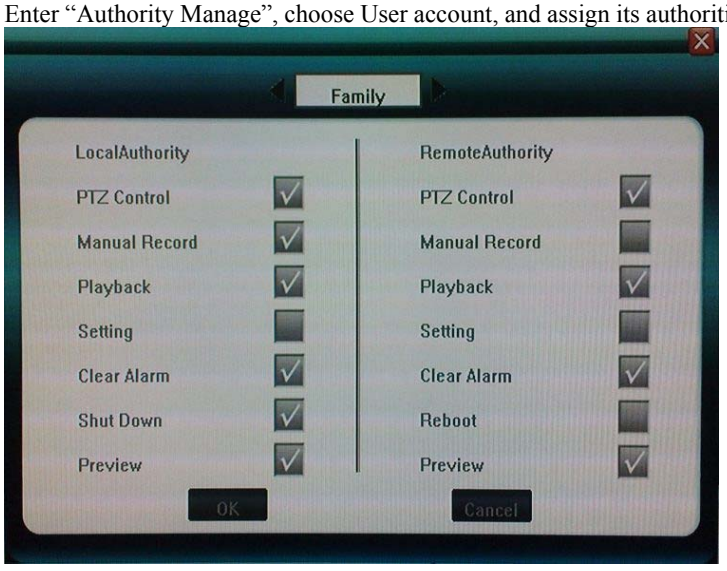
Enter “DEL USER” to delete user account



◆ Authority Manage

Operation of DVR for “User” account can be defined by system. There are two conditions to apply restriction, **Local operation** and **Remote access**. The user accounts are not allowed to operate DVR setting.

Enter “Authority Manage”, choose User account, and assign its authorities.



- **SEQ Display(Preview Cruise)**
  Set up the SEQ display (Cruise Way) for 4CH(1/4CH) and 8CH(1/4/9/16CH), and the time interval(Cruise Way) in seconds between them

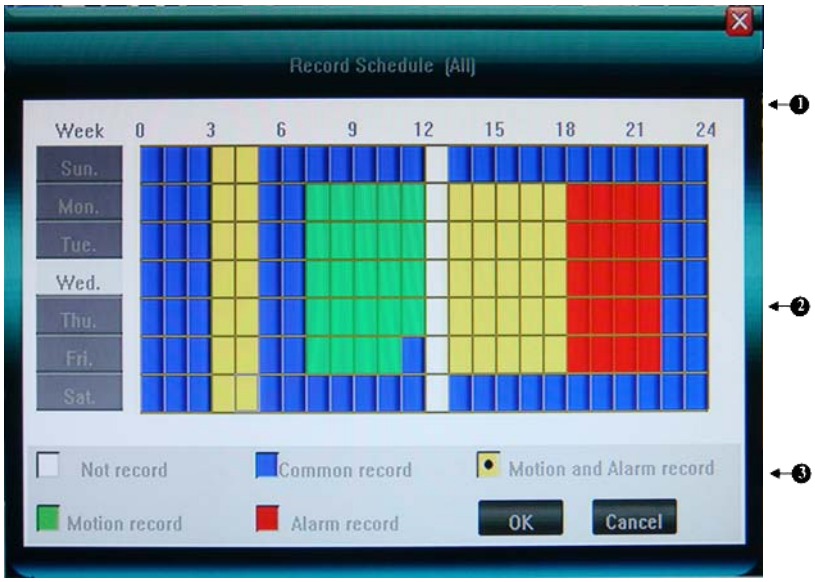
- **DVR ID NUMBER**
  It is future growth, to set up the same ID number with RS422 Keyboard if you want to control DVR from keyboard.

5.3 Record Setting

5.3.1 Video Channel

Select channel number for apply record setting. Select [ALL] for apply to all channels.

5.3.2 Record Schedule



① . The current recording channel number

② . The record schedule

③ . Description of record type

- **no record (white)**: No recording during this time
- **common record (blue)**: Recording always
- **move record (green)**: Motion-detection triggered recording
- **alarm record (red)**: Alarm-triggered recording
- **move and alarm record (yellow)**: Recording triggered by either alarm or motion detection.

System provides a recording option for 24 hours every day and Sunday through Saturday every week. Unit is hour. One grid indicates one hour.

Mouse set up- select a record type, move to a time grid, left click it or hold it, and dragging to the desired region; color of the grid will change relevantly; left click the week day if you want that day with all the same record type.

Faceplate or Remote control buttons –

Using【Direction】buttons to a time grid, select the record type by repeat pressing【Enter】button until done; or press the □/⊞ or ⊞/▦**(faceplate button),** or [**FN**] (**remote control**), and dragging to the desired region, and press again to finish; color of the grid will change relevantly; Move to the week day, and repeat pressing【Enter】button until done if you want that day with all the same record type.

Select OK to confirm settings. **The settings will take effect after being saved.**

When motion detection & alarm recording is selected, the motion detection sensitivity and area should be set ahead. Please refer to 5.4.6 Motion Detection Settings for details. When alarm recording is selected, the alarm triggering settings should be set ahead. Please refer to 5.6.3 Event Handling for details; the recording time would be 30 sec. when motion detect or alarm happened except continuous happened, which will be accumulated to the last one.

5.3.3 Video Quality

Select quality level for record audio/video. The pre-define selection from Best 768kbps →High 640kbps →Mid 512kbps →Low 384kbps or user define. User can manually input bit rate for recording. (Kbit/s). The higher video bit rate would impact network remote viewing if you don't open the sub code(sub streaming) for dual streaming, please refer to **5.3.8 Dual Streaming**.

5.3.4 Record Frame Rate

Select recording frame rate per second. The pre-define selection from Full (30/25fps) → 15 fps → 7fps → 3fps → 1 fps or user define.

5.3.5 Record Source

Two type selection of recording, Video with audio or Video only.
Only select "Video with audio", can hear the sound via internet or playback

5.3.6 OSD Setting

Define OSD (On Screen Display) string. The options have as following
1) Camera's Name and Time Stamp
2) Camera Name
3) Time Stamp
4) None
Only select "Time Stamp", can see time display when playback

5.3.7 Record Resolution

Choose record resolution of the channel selected, and must choose the same resolution for all channels

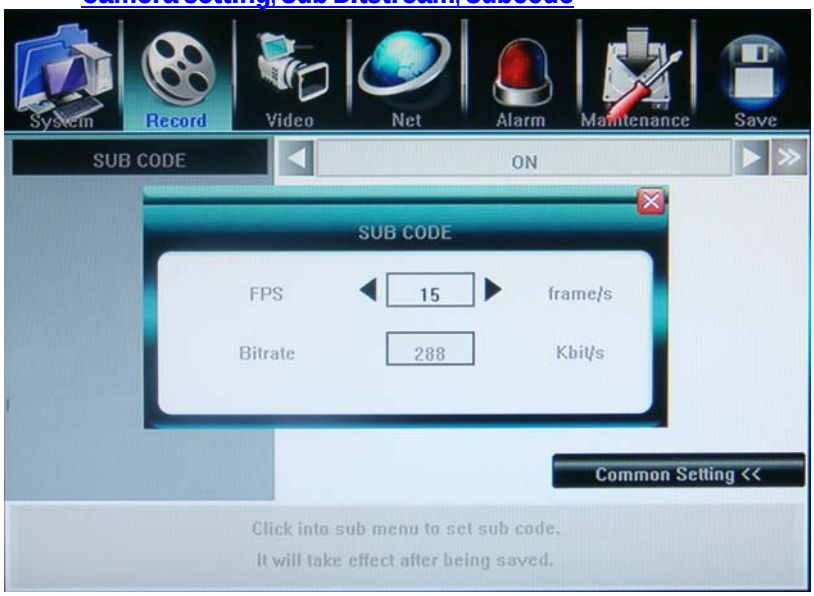
1) CIF(352 x 240, or 352 x 288)
2) Half D1(704 x 240, or 704 x 288)
3) D1(704 x 480, or 704 x 576)

Please note 4CIF=2 Half D1=D1, so that "Record Frame Rate" would be reduced automatically even you set up as "Full" for D1 and Half D1.

5.3.8 Dual Streaming for Network(Record- Advanced Setting)

- **SUB CODE**

  By default, DVR use recording streaming for IE Browser viewer and mobile streaming. Enable sub code can customize the frame rate and bitrate for IE client viewer and mobile streaming in case of limited upload bandwidth, and they can be setup independently for every channel. For IE set up, please refer to **Channel→ Camera setting, Sub Bitstream, Subcode**



5.4 Video Setting

5.4.1 Camera Channel

Select camera channel for apply camera setting. Select [ALL] for apply to all channels.

5.4.2 PTZ Protocol

Select PTZ device protocol. Support CLT-618, JY2000, Philip, Pelco-D, Pelco-P, Panasonic, Samsung, SYYT, TD500, Tiandy, VIDO, VTS, YAAN, Yiboer and etc.

5.4.3 PTZ Baud Rate

Select PTZ device baud rate. Support 1200, 2400, 4800, 9600.

5.4.4 PTZ ID

Select PTZ device ID. From 0~255

5.4.5 Color Setting

Adjust camera color attribute, by default the value is 8.

- Brightness: 1 ~ 16
- Contrast: 1 ~ 16
- Hue: 1 ~ 16
- Saturation: 1 ~ 16

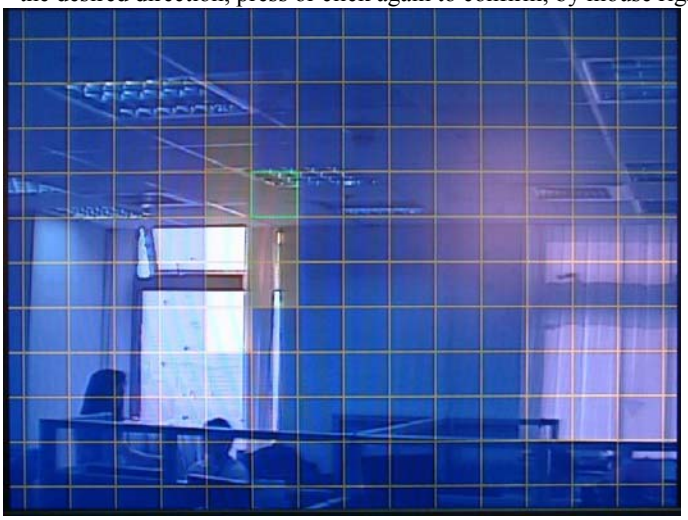
5.4.6 Motion Detection & Region

◆ **Sensitivity of motion detection**

There are three level sensitivity of motion detection.
Highest →Normal → Low or Disable

◆ **Configure motion detection by region.**

Press 【>>】on screen to pop up sub windows for region setting.
There are totally 16 x 12 individual blocks for a camera view. Each cell can be turn on(**Blue**) or off(**Clear**) by single mouse left-click, or press □/⊞ **or** ⊞/▦**(faceplate button)**, or press [**FN**] (**remote control**); you may define multiple-cell areas by clicking mouse or pressing button on one cell and dragging the selection in the desired direction, press or click again to confirm; by mouse right-click or press [**ESC**] to finish the setting.



5.4.7 Privacy Mask(Mosaic)

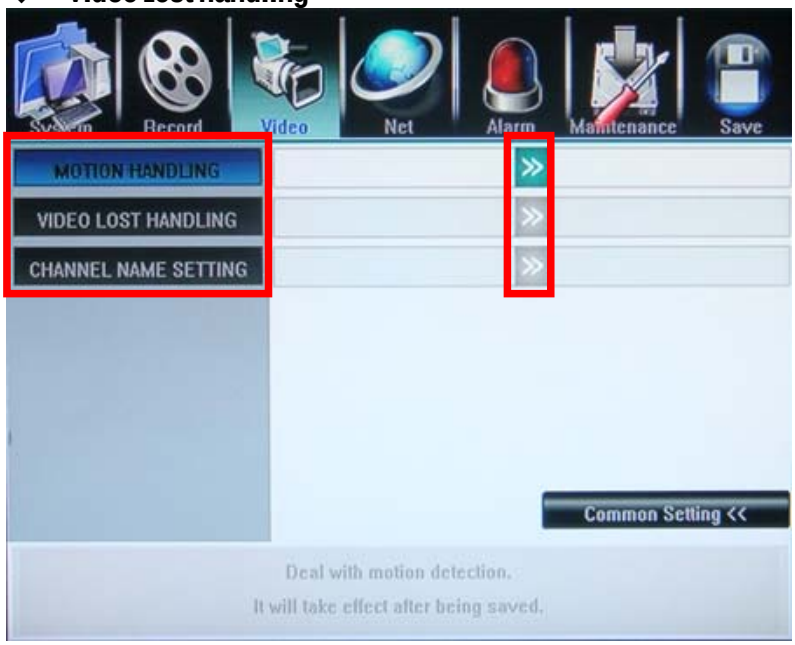
Each camera can define multiple regions for privacy protection. Click 〖>>〗 open sub windows By single mouse left-click; or press □/⊞ **or** ⊞/▦ **(faceplate button)**, or press [**FN**] (**remote control**), and define the single cell by [**Enter**] (**faceplate or remote control button**); or you may define multiple-cell areas by clicking mouse or pressing button on one cell and dragging the selection in the desired direction, press [**Enter**] (**faceplate or remote control button**) to define the region; by mouse right-click or press [**ESC**] to finish the setting.

To cancel the privacy region, by use mouse/ left-click, or press □/⊞ **or** ⊞/▦**(faceplate button),** or press [**FN**] (**remote control**) to move to the privacy region, and press [**ECS**] or mouse/right-click to confirm; by mouse right-click or press [**ESC**] again to finish the setting and return back to manual.

Each privacy region will show only gray color in live view windows and being recorded. Support Maximum 4 regions.

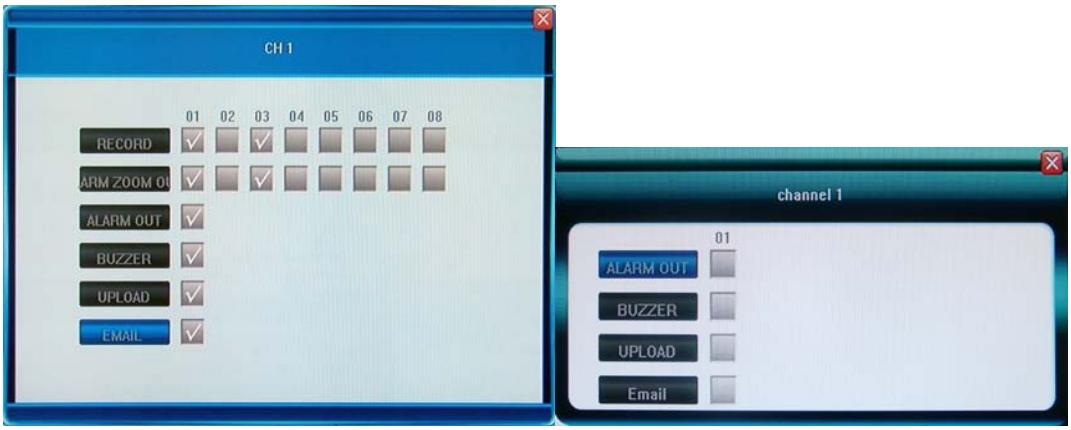
5.4.8 Motion, Video Lost and Channel Name(Video- Advanced Setting)

- **Motion Handling**
- **Video Lost handling**



User can pre-define correspond actions while DVR handling the event such as motion detection, video lost, following is the action list,

- Record: Start record immediately for selected channels
- Alarm Zoom Out: display channels when motion happened, please refer to 5.6.4
- Alarm Out: Set the Alarm output enable
- Buzzer: Set the internal Buzzer enable
- E-mail: Send E-mail with Snapshot picture(please refer to **5.5.6 E-mail Server** about how to set up the E-mail address list)
- UPLOAD: upload these events message to IE or CMS server, to be displayed at the top right corner



Motion Detect **Video Loss**

- **Channel Name Setting –** at most 16 characters, but only can display 11 characters

5.5 Net Setting

5.5.1 Network(Static IP/DHCP)

DVR support two methods to acquire IP address,

- Automatic acquire IP address by DHCP client model.
- Manual assign IP address by Static IP model.

PPPoE for ADSL dial-up network are supported, please click Next Page.

5.5.2 Http Port

By default is port:80, user can specify different port number.

5.5.3 Command Port

By default is port:5050, user can specify different port number.

5.5.4 Media Port

By default is port:6050, user can specify different port number.

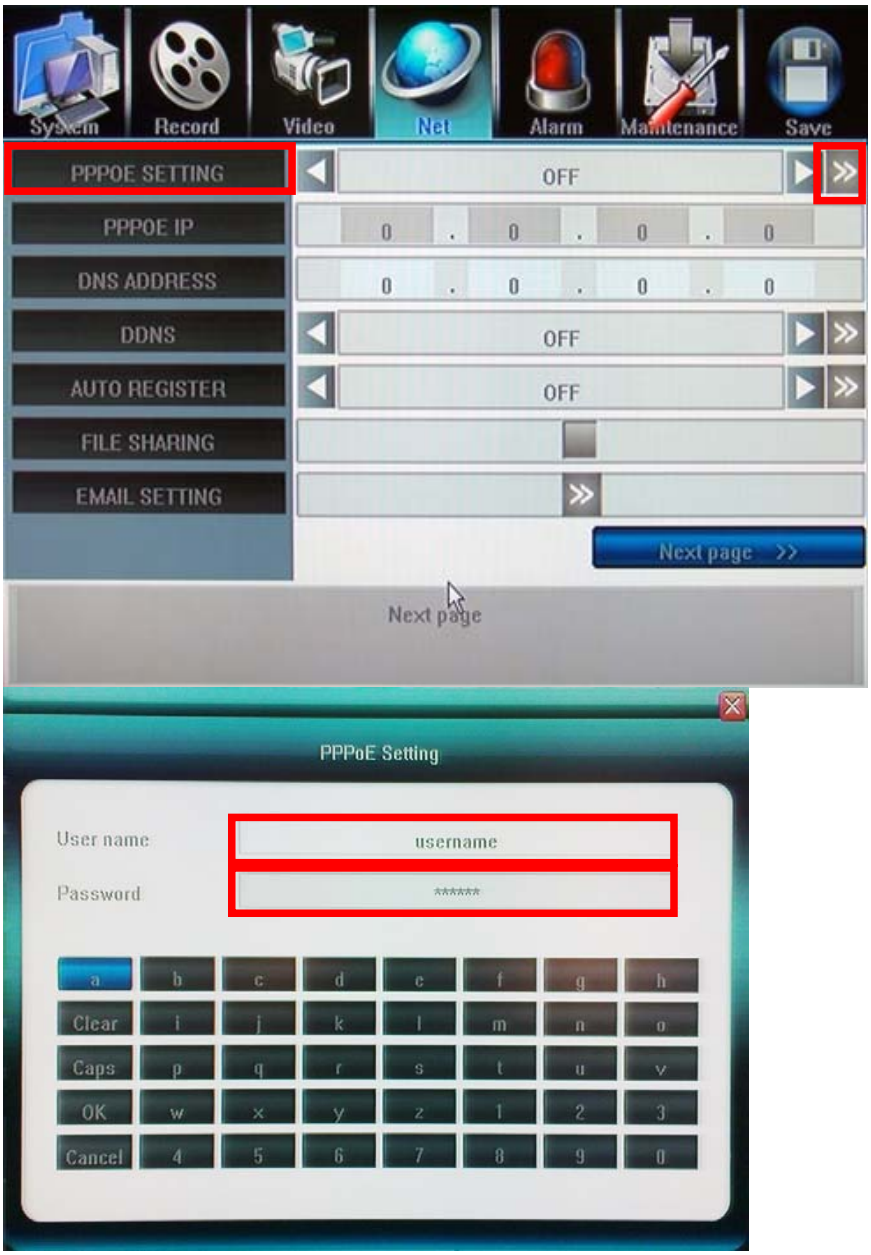
If DVR installed behind a Router to share a single public IP address. Be sure to configure the "Port Forwarding" or "Virtual Server" for those three network port and Mobile surveillance Port:7050; you may surf http://portforward.com for more information.

Http port:80, Command port:5050, Media port:6050 and mobile surveillance port:7050 must open/allow to upload to WAN interface if DVR installed behind a Firewall server; for port no., please refer to http://www.iana.org/assignments/port-numbers for more information

5.5.5 PPPoE/DDNS(Net- Second Page]

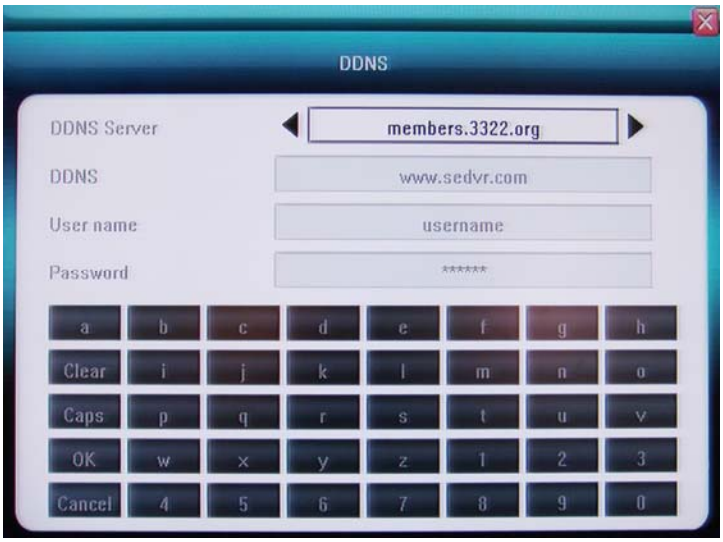
◆ **PPPoE Setting**

Click 〖>>〗 to open sub window and input ADSL account and password from Internet Service Provider.



◆ **DDNS**

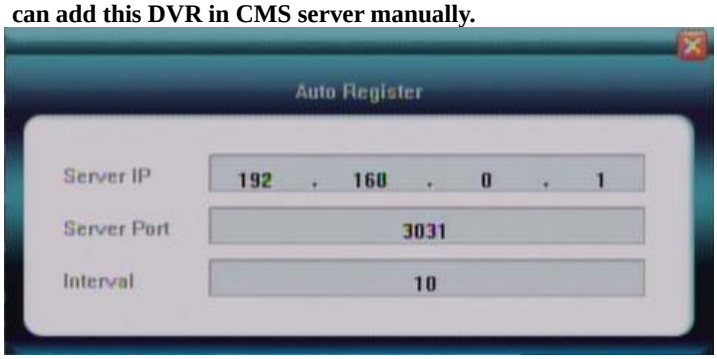
Click 〖>>〗 to open sub window and input DDNS account and password from DDNS Service Provider. User must apply DDNS service account at first.



update.ods.org
www.justlinux.com
www.hn.org
members.3322.org
members.dyndns.org
www.EZ-IP.net
members.dhs.org
www.easydns.com
www.dyns.cx
www.zoneedit.com
members.3322.org(static)
members.dyndns.org(static)
www.penguinpowered.com
cgi.tzo.com

- **Auto Register**

DVR can configure to automatically register to CMS, **input CMS Server IP address, Server Port: 8003(default) and register time interval in seconds(register to CMS server if failed); it is not necessary setup because you can add this DVR in CMS server manually.**



- **File Sharing**

Check to activate files sharing function, then able to visit video files in DVR HDD via network neighborhood.

How to visit shared files:

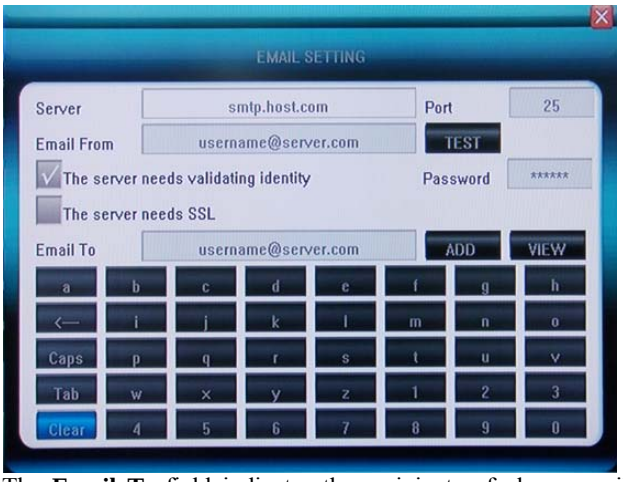
Double click network neighborhood, input \\ IP address, such as \\192.168.10.220 , to enter the login page, type in the super authority "Admin" and password, the shared files can be accessible now, click into folder of "videoout" to check video files.

- **MOBILE PORT(Net-Third Page)**

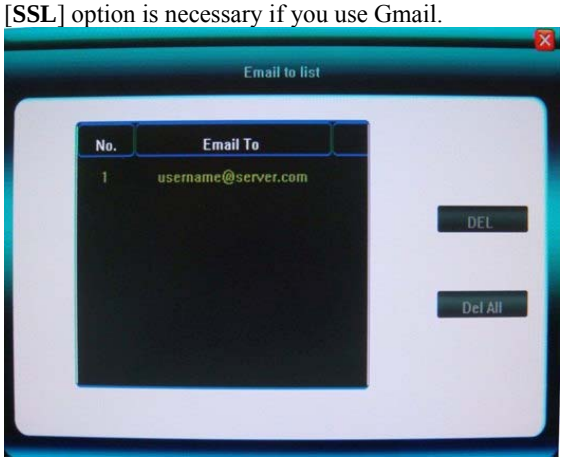
By default is port: 7050, user can specify different port number, please refer to 7. 3G/3.5G Mobile Phone/PDA Support for details.

5.5.6 E-Mail Server

User can add multiple e-mail address of recipients for alarm, motion and video loss notification. Input standard SMTP mail server IP address. Please make sure you have user account and password in advance.



The **Email To** field indicates the recipients of alarm emails, and the **Email From** field indicates the email account from which the message will be sent. You can input the **Email To** field and [**ADD]** it into the list of recipients. You can [**VIEW]** the list of recipients in the **Email to list**, where you can delete if no need any more. [**SSL**] option is necessary if you use Gmail.



You may use [**TEST]** to test the Email to list while input, to make sure that they are communicated, please remember the server information and **Email From** information must be corrected, and DVR must be internet connected before [**TEST]**

5.6 Alarm Input/Output Setting

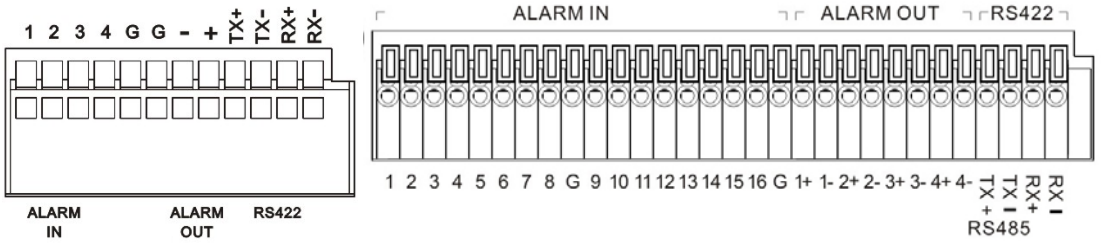
5.6.1 Alarm Input Channel

- Select alarm input channel for apply record setting. Select [ALL] for apply to all channels.

5.6.2 Alarm Input Type

The alarm input attribution includes N/O. and N/C.
Each camera has one input pin on Terminal Block at the real panel.
User must use voltage output type sensor to connect alarm input interface.

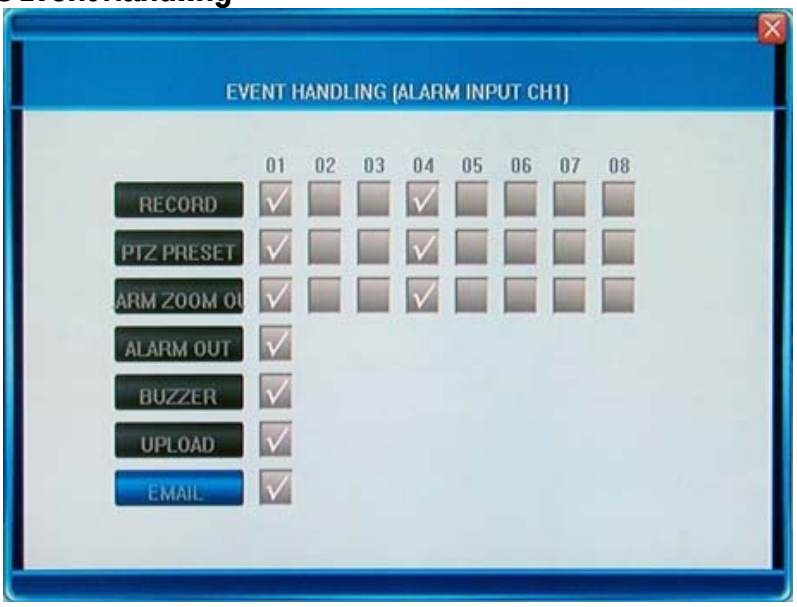
Sensor device output **POSITIVE (+)** pin connect to DVR's input pin (1~4 pin, or 1 ~ 8, 9~16 pin)
Sensor device output **GROUND (-)** pin connect to DVR's G pin


1 2 3 4 G G - + TX+ TX- RX+ RX-
ALARM IN
ALARM OUT
RS422
ALARM IN
ALARM OUT
RS422
1 2 3 4 5 6 7 8 G 9 10 11 12 13 14 15 16 G 1+ 1- 2+ 2- 3+ 3- 4+ 4-
TX+ TX- RX+ RX-
RS485

N/O.: Normally open. Sensor must constant output low level voltage. If output voltage change from Low level to High level then DVR will be triggered.
N/C.: Normally connected. Sensor must constant output High level voltage. If output voltage change from High level to Low level then DVR will be triggered.

Maximum high level voltage is $5V_{DC}$

5.6.3 Event Handling



User can pre-define correspond actions while DVR handling the Alarm event.

- Record: Start record immediately for selected channels
- PTZ PRESET: set up the PTZ preset position for selected channels
- Alarm Zoom Out: Set the pop up selected channels, please refer to Chapter 5.6.4
- Alarm Out: Set the Alarm output enabled
- Buzzer: Set the internal Buzzer enable
- Upload: upload these events message to IE or CMS server, to be displayed at the top right corner
- E-mail: Send E-mail with Snapshot picture(please refer to **5.5.6 E-mail Server** about how to set up the E-mail address list)

Note1: if user wants to set alarm triggered record, please set the record schedule first at "Record Schedule".

Note2: if user wants to set alarm triggered PTZ, please select the channel number first, and then to set (only preset 1 can be selected)

Note3: Event handling sound / report to alarm center need to be set in IE explorer. Please refer to Chapter 6.3

5.6.4 Alarm Setting(Schedule), Zoom Out and Hard Disk Full actions

◆ ALARM SETTING - Alarm Schedule

Click 〖>>〗 to open sub window for alarm schedule setting.

User can enable/disable **alarm output** by weekly schedule, the unit is hour, enable is red, disable is white. There are **mouse/faceplate buttons/remote control operations for set up as well**, same as record schedule, you can refer to 5.3.2 Record Schedule for details

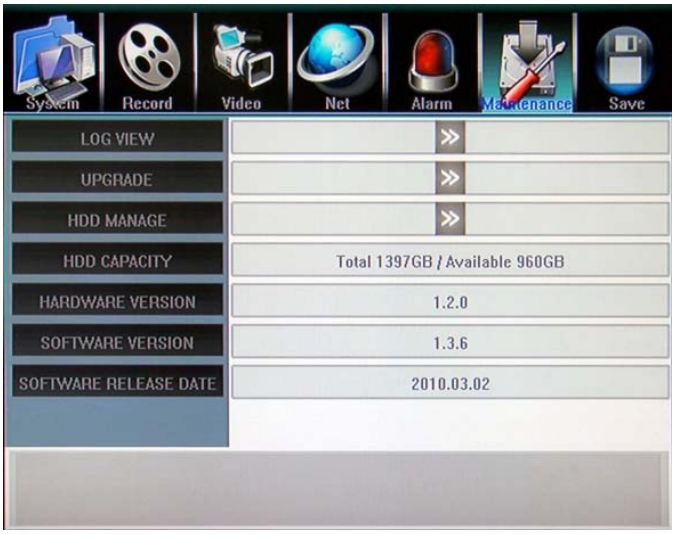
◆ Alarm Zoom Out

Set the time interval(seconds) for channels pop out display while alarmed(Motion and Sensor)

◆ Hard Disk Full actions

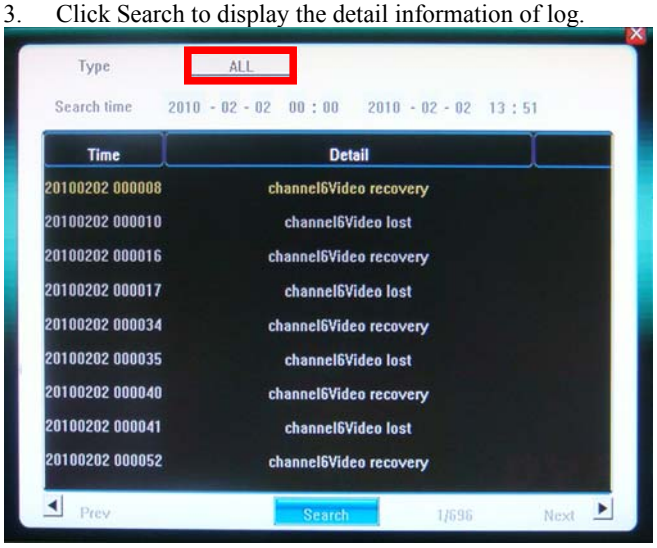
- Alarm Out: Set the Alarm output enabled
- Buzzer: Set the internal Buzzer enable
- Upload: upload these events message to IE or CMS server, to be displayed at the top right corner
- E-mail: Send E-mail with Snapshot picture(please refer to **5.5.6 E-mail Server** about how to set up the E-mail address list)

5.7 Maintenance



5.7.1 Log View

1. Select the type of log to be searched: All/ Operation/ Exception/ Alarm.
2. Select the time scope to be searched.
3. Click Search to display the detail information of log.



Note: The maximum number of logs supported currently is 3000. The storage mode adopts overwrite mode: continuously overwrite the oldest data when the database is full.

5.7.2 Software Upgrade

The upgrade modes supported now are USB & IE Remote Software:

USB：Please make sure the USB device is connected correctly and the upgrade applications have already being copied into **USB root directory**. **We suggest to use fresh USB Flash Disk for upgrade to prevent crash,** Please follow the prompts to operate. After accomplishing upgrade, press confirm button to restart.

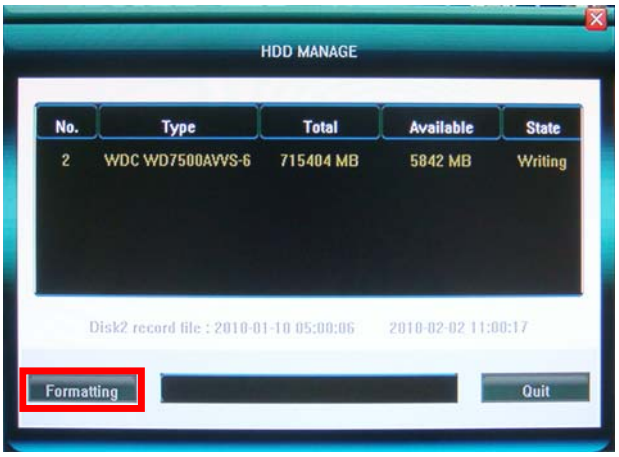
5.7.3 HDD Manage

HDD must be formatted by DVR before start recording audio/video.

Click 〖>>〗to open sub window and format the HDD by DVR.

HDD information will display on the windows if DVR detection HDD correctly.

Click 【Formatting】to start HDD format.



5.7.4 HDD Capacity

Show DVR current HDD capacity status.

5.7.5 Hardware Version

Show DVR current hardware version.

5.7.6 Software Version

Show DVR current software version.

5.7.7 Software Release Date

Show DVR current software release date.

5.8 Save Setting

5.8.1 Save & Exit

Save all setting and exit menu.

5.8.2 Exit

Exit menu without save setting.

5.8.3 Restore defaults

Reset all configuration to factory default

The system language, time, camera PAL/NTSC system, and network settings (IP address, subnet mask, gateway, HTTP port) will not be recovered by restoring to factory defaults.

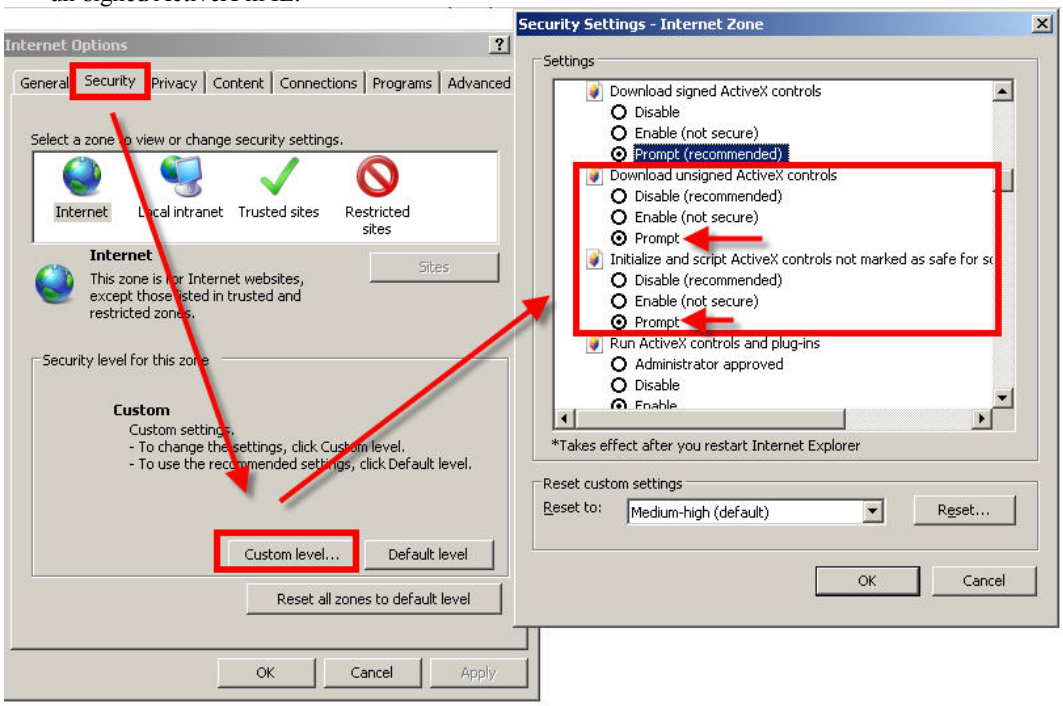
5.8.4 Logout

Save all setting and exit menu.

6. Web Browser Operation (IE Browser only)

6.1 Enable Download Un-singed ActiveX Control if necessary

User's computer need download ActiveX components for web access at the first time connect to DVR. If user's Internet explorer prohibits the download action(the DVR software is unsigned) then please manually enable the download of un-signed ActiveX in IE.



Download unsigned ActiveX controls→ Enable or Prompt
Initialized and script ActiveX controls not marked as safe → Enable or Prompt

6.2 Turn off UAC for Windows 7 and Vista

To prevent unexpected troubles by ruing IE or CMS, we strongly suggest to disable UAC(User Account Control) for Windows 7 and Vista. To perform the following procedure, you must be able to log on with or provide the credentials of a member of the local **Administrators** group.

Important
Turning off UAC reduces the security of your computer and may expose you to increased risk from malicious software. We do not recommend leaving UAC disabled.

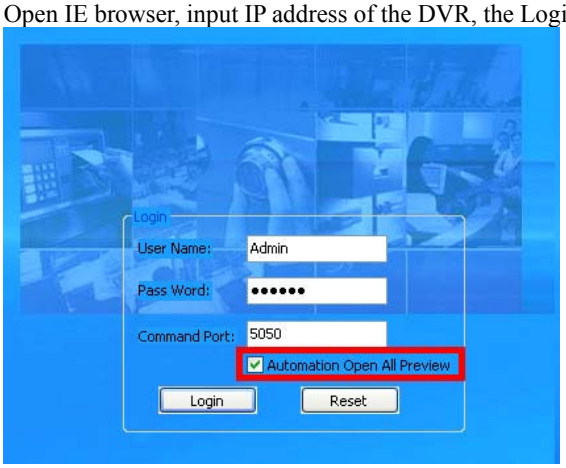
To turn off UAC

1. Click **Start**, and then click **Control Panel**.
2. In **Control Panel**, click **User Accounts**.
3. In the **User Accounts** window, click **User Accounts**.
4. In the **User Accounts** tasks window, click **Turn User Account Control on or off**.
5. If UAC is currently configured in Admin Approval Mode, the **User Account Control** message appears. Click **Continue**.
6. Clear the **Use User Account Control (UAC) to help protect your computer** check box, and then click **OK**.
7. Click **Restart Now** to apply the change right away, or click **Restart Later** and close the **User Accounts** tasks window

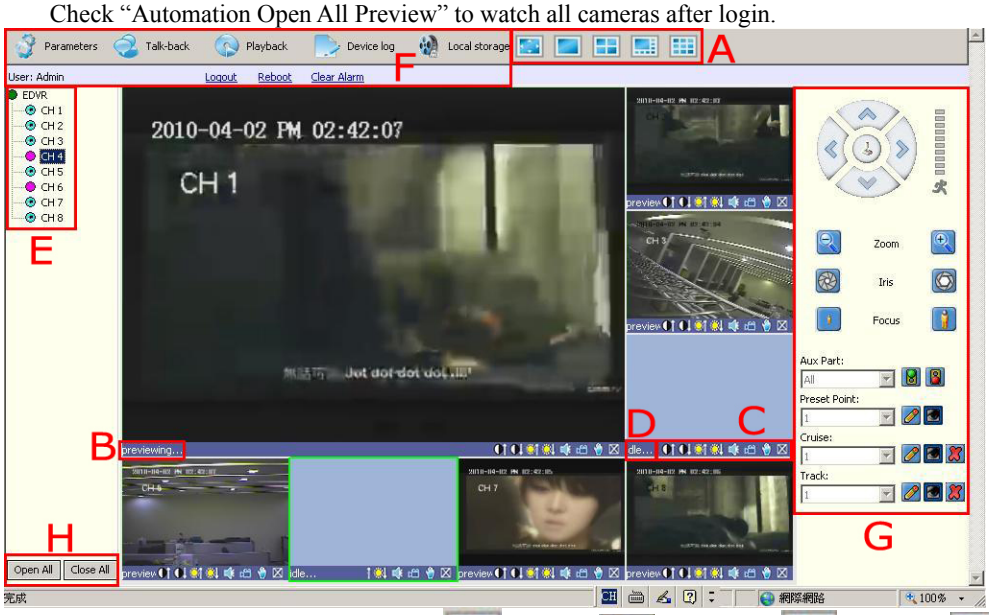
Source info: http://technet.microsoft.com/en-us/library/cc709691.aspx

6.3 Web Browser Main Screen

Open IE browser, input IP address of the DVR, the Login windows will appear.



Check “Automation Open All Preview” to watch all cameras after login.



A. Camera view window: Full Screen /1 camera / 4 cameras / 8 cameras /9 cameras

B. Camera view is previewing

C. Camera view tools

: Adjust image contrast up/down.

: Adjust brightness up/down.

: Start/stop voice monitoring(Chapter 5.3.5). The icon will turn to green when recording.

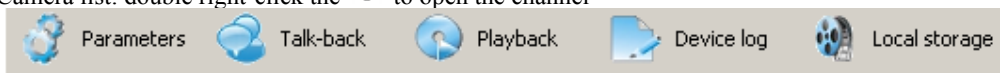
: Start/stop recording. The icon will turn to green when recording.

: Click to snapshot.

: Stop preview, the will turn to on the **E** Available Camera list

D. Camera view is idle if not opened

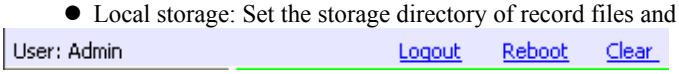
E. Available Camera list: double right-click the to open the channel

F. Tools Bar 

The description of icons from left to right is:

- Parameters: configure device parameters(set up), please refer to 6.5 Device Parameters Settings
- Talk-back: use channel 1 only, please open PC microphone and speakers, and DVR need to connect active microphone/speaker
- Playback: Search and playback record files, please refer to 6.6 Video Files Playback & Download
- Device log: View logs and export them, please refer to 6.6.3 Device Log

- Local storage: Set the storage directory of record files and pictures captured



From left to right: Current Login Account, Log-out, Restart DVR remotely, Clear alarm

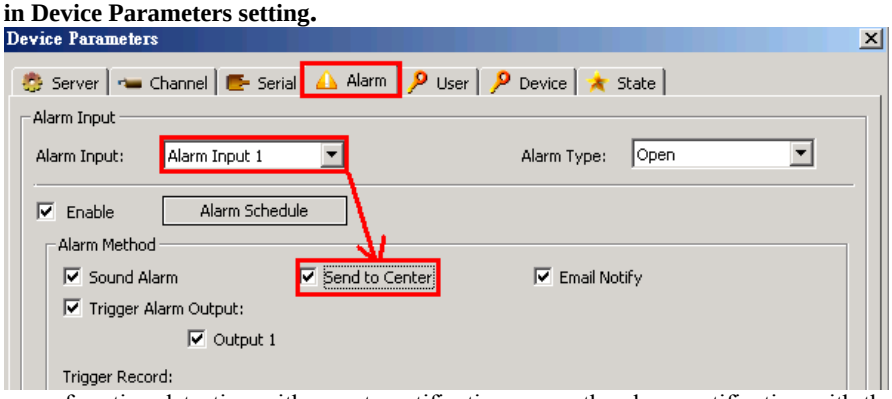
G. PTZ Control
Please refer to 4.8 PTZ Control

H. Open All/Close All: open or close all the channel preview

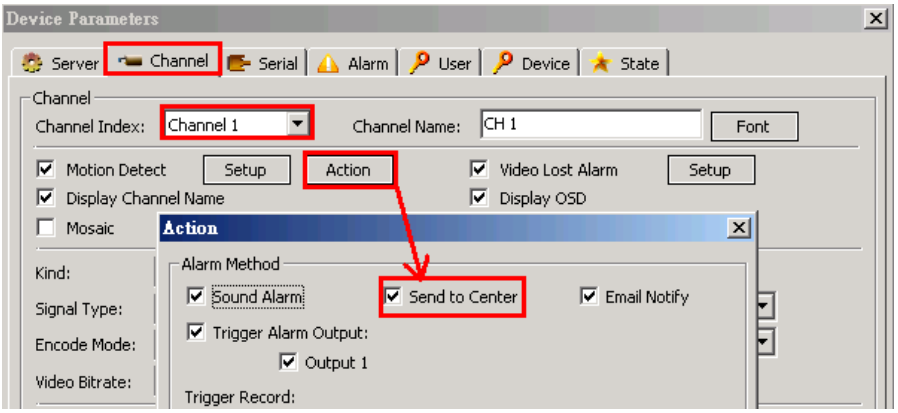
6.4 Alarm Notification

- When network connection is broken or abnormal, the alarm notification of "**No heartbeat of device, please check the network!**" **will be displayed in the right up side of the main screen**. After recovery of network, the preview will be displayed automatically.

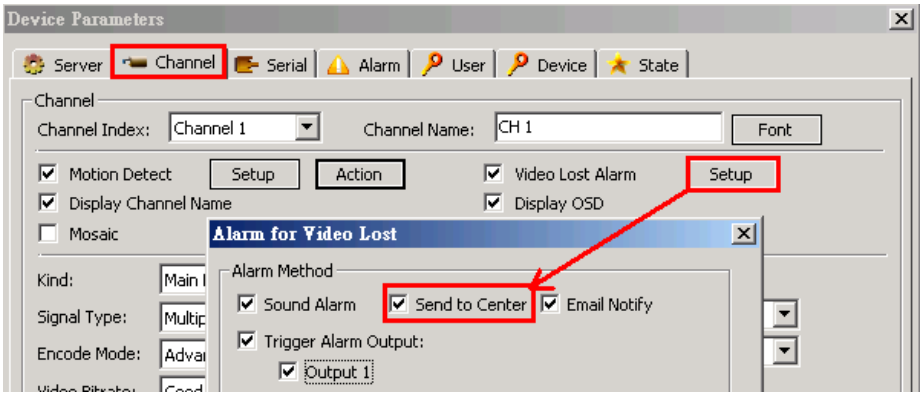
- When alarms of remote notification occur, the alarm notification with alarm input number contained such as "**Device alarm: IO alarm, IO input x**" will be displayed in the right up side of the main screen. **Enable this function in Device Parameters setting.**



- When alarms of motion detection with remote notification occur, the alarm notification with the alarm channel number contained such as "**Device alarm: motion detection, channel X**" will be displayed in the right up side of the main screen.



- When alarms of video loss with uploading to center occur, the alarm notification with the alarm channel number contained such as "**Device alarm: video loss, channel x**" will be displayed in the right up side of the main screen.

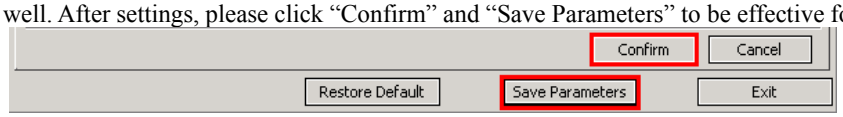


6.5 Device Parameters Settings

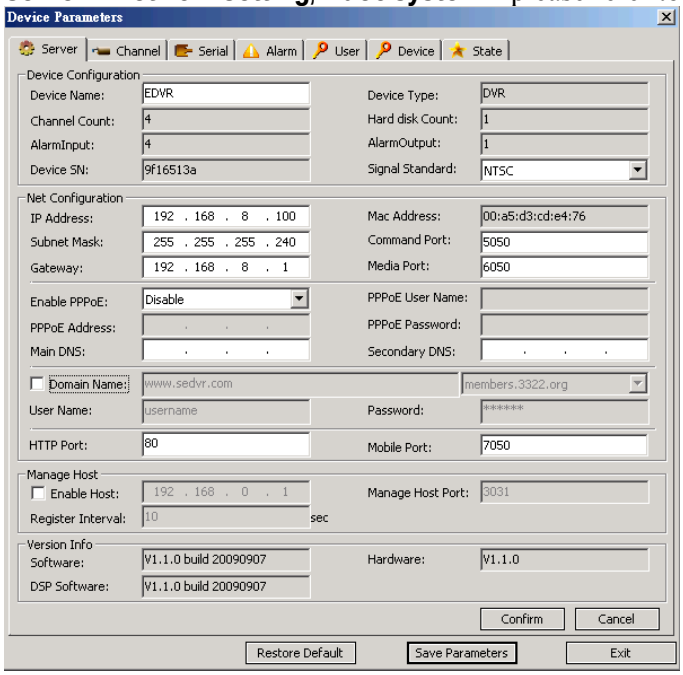
Click

, the Device Parameters will appear

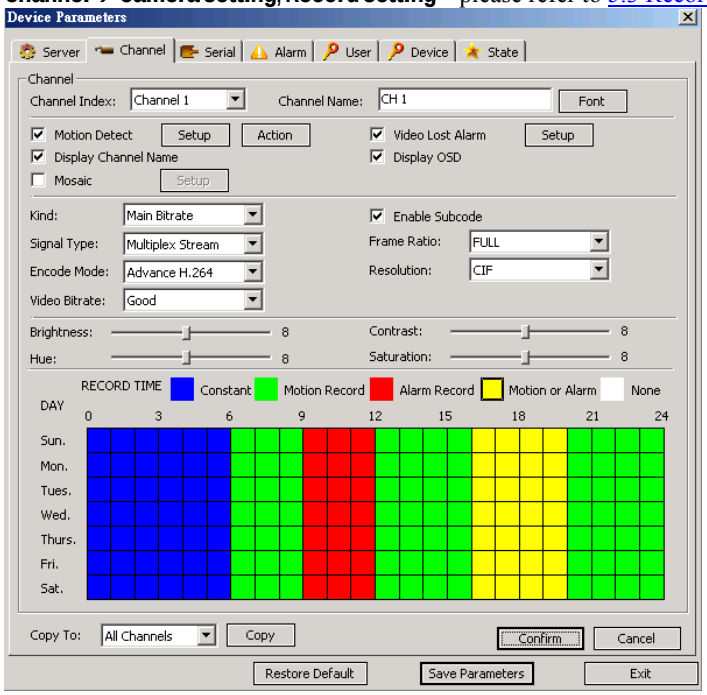
, please refer to Chapter 5 DVR Settings as well. After settings, please click "Confirm" and "Save Parameters" to be effective for each setting window:



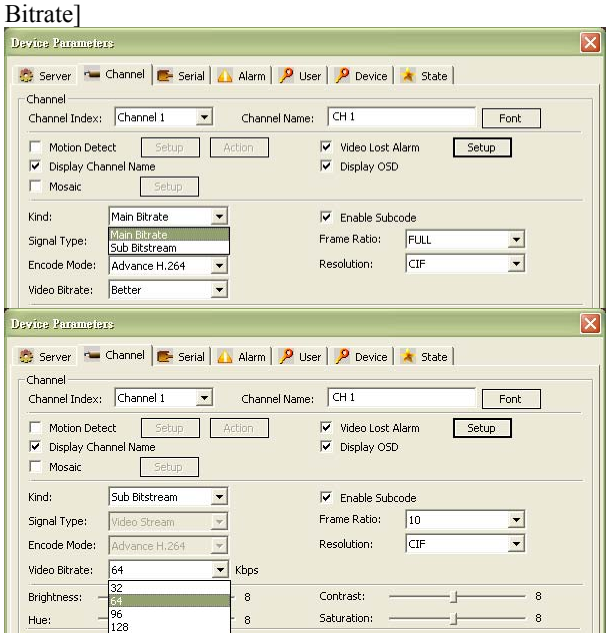
- **Server→Network setting, video system –** please refer to Chapter 5.5 Net Setting as well



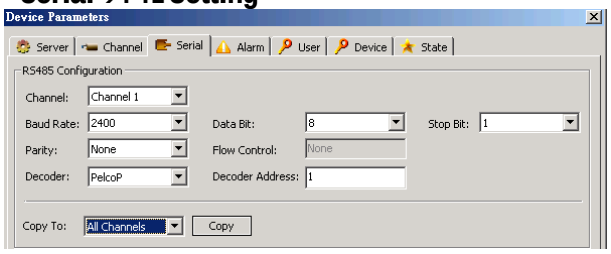
- **Channel→ Camera setting, Record setting –** please refer to 5.3 Record Setting and 5.4 Camera Setting as well



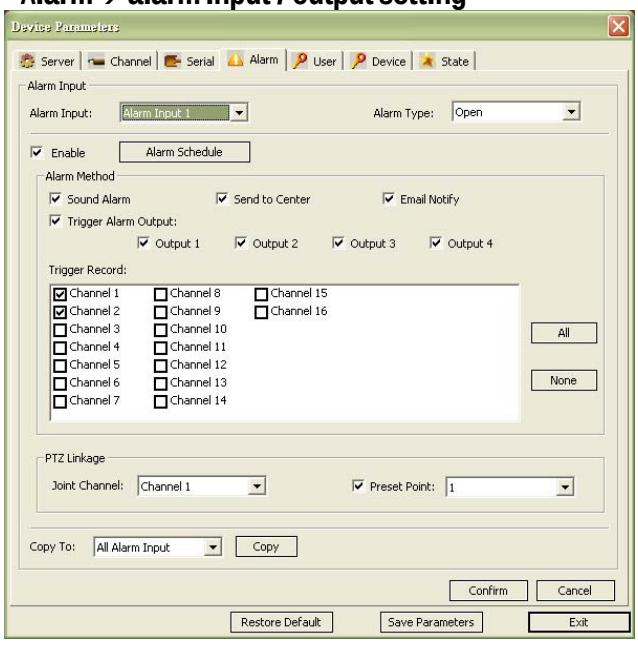
- **Channel→ Camera setting, Sub Bitstream, Subcode –** please refer to 5.3.8 Dual Streaming for Network(Record- Advanced Setting) as well
  For limited upload bandwidth of internet that DVRs connect, or limited streaming capability of some mobile phone/PDA, you have to adjust bandwidth of DVR to internet: [Enable Subcode] ->[Sub Bitstream] ->[Video Bitrate]



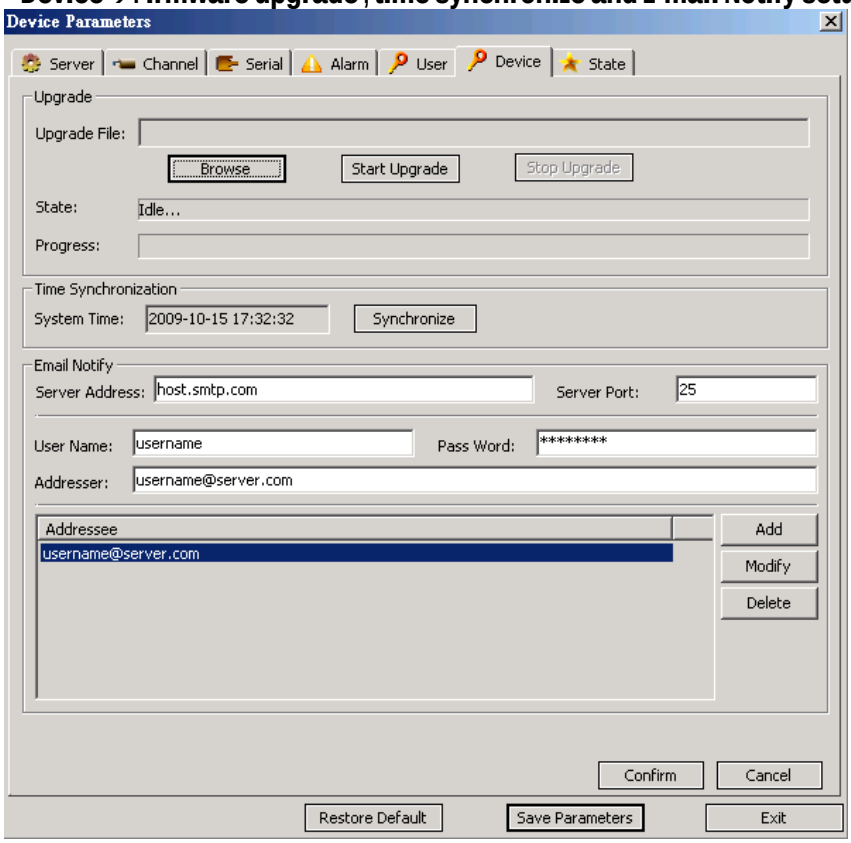
- **Serial→PTZ Setting**



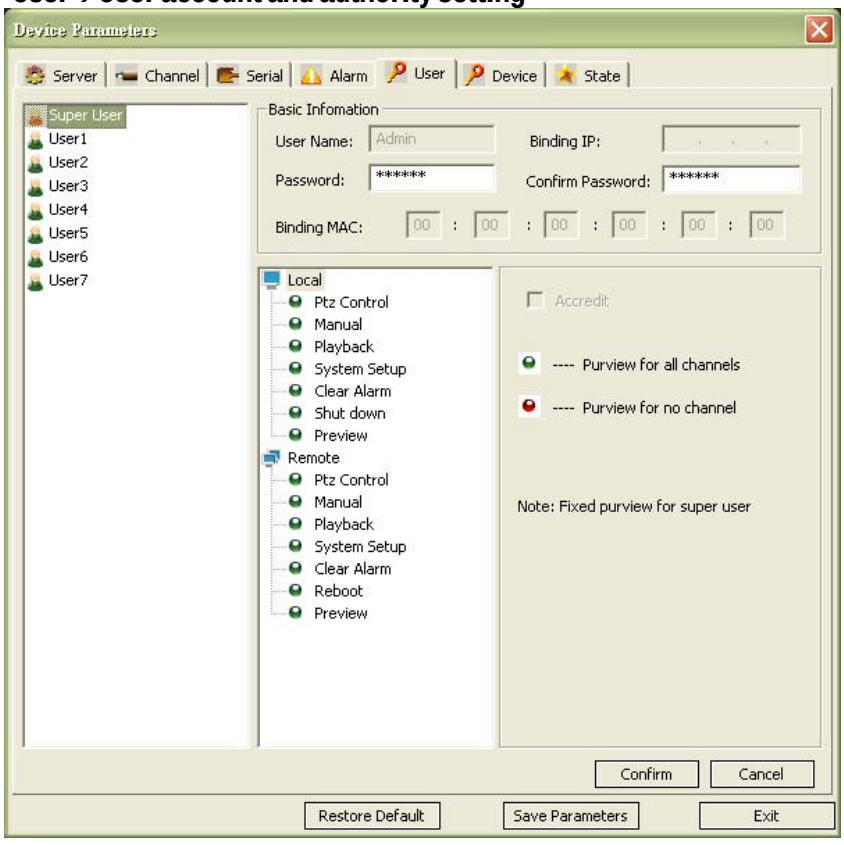
- **Alarm→ alarm input / output setting**



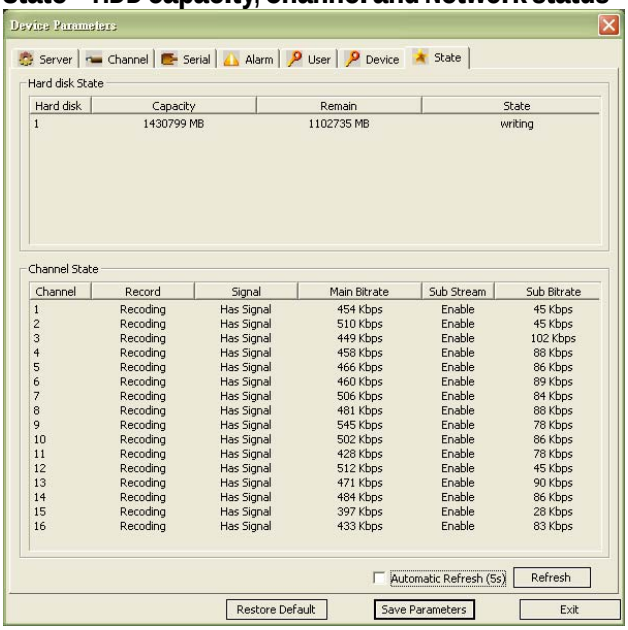
◆ Device→Firmware upgrade , time synchronize and E-mail Notify setup



◆ User→User account and authority setting



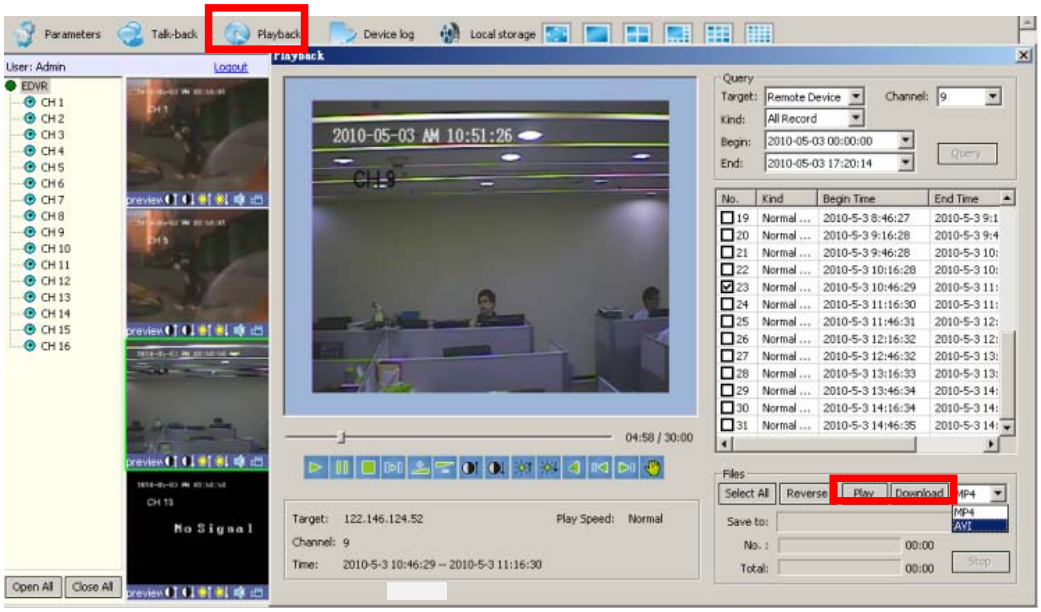
◆ **State – HDD capacity, Channel and Network status**


Device Parameters
Server
Channel
Serial
Alarm
User
Device
State
Hard disk State
Hard disk
Capacity
Remain
State
1
1430799 MB
1102735 MB
writing
Channel State
Channel
Record
Signal
Main Bitrate
Sub Stream
Sub Bitrate
1 Recoding Has Signal 454 Kbps Enable 45 Kbps
2 Recoding Has Signal 510 Kbps Enable 45 Kbps
3 Recoding Has Signal 449 Kbps Enable 102 Kbps
4 Recoding Has Signal 458 Kbps Enable 88 Kbps
5 Recoding Has Signal 466 Kbps Enable 86 Kbps
6 Recoding Has Signal 460 Kbps Enable 89 Kbps
7 Recoding Has Signal 506 Kbps Enable 84 Kbps
8 Recoding Has Signal 481 Kbps Enable 88 Kbps
9 Recoding Has Signal 545 Kbps Enable 78 Kbps
10 Recoding Has Signal 502 Kbps Enable 86 Kbps
11 Recoding Has Signal 428 Kbps Enable 78 Kbps
12 Recoding Has Signal 512 Kbps Enable 45 Kbps
13 Recoding Has Signal 471 Kbps Enable 90 Kbps
14 Recoding Has Signal 484 Kbps Enable 86 Kbps
15 Recoding Has Signal 397 Kbps Enable 28 Kbps
16 Recoding Has Signal 433 Kbps Enable 83 Kbps
Automatic Refresh (5s)
Refresh
Restore Default
Save Parameters
Exit

6.6 Video Files Playback & Download

6.6.1 Video Files Playback

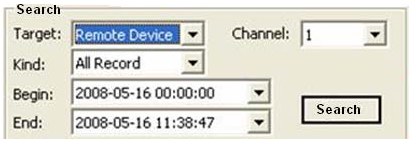
Click Playback, the playback screen will appear. It includes video files search, playback and video files download.



◆ **Video Files Search**

The file search part is on the right upper side of the screen, please set target, type, start time and end time there. Then click Query to start searching. The result will list on the table.

Specify the files in the table list and click on the playing control button or download button to do the relevant operations.



◆ **Video File Playback**

The play control screen is on the left side of the screen. It includes image display area, play control bar, and channel information.

Click Play, the record files selected will be displayed in time order. The progress of playing is shown as the figure below:

The playing control bar is shown as the figure below. The descriptions of all these icons from left to right are as follows:

Play; Pause; Stop; Go to next frame; **Fast play** option (The current speed of playing will be doubled by each clicking. It includes: 2X, 4X, 8X, and 16X); **Slow play** option (The current speed of playing will be half down by each clicking. It includes 1/2X, 1/4X, 1/8X, and 1/16X); **Enhance contrast; Reduce contrast; Enhance brightness; Reduce brightness; Open/close voice; Go to previous file; Go to next file**; **Prompt file location**

(and is enabled only when multiple record files being selected to play); Snapshot （the storage directory can be set on the pop-up screen by clicking Local Storage）.

The information of the record file selected will be displayed in the area shown as the figure below. It includes device's IP address, current play speed, channel number and start/end time of the record file.

6.6.2 Download Video Files

Click ... to set the storage directory of the video file. Click Download to start downloading, the format is **MPEG4 or AVI,** you may select.

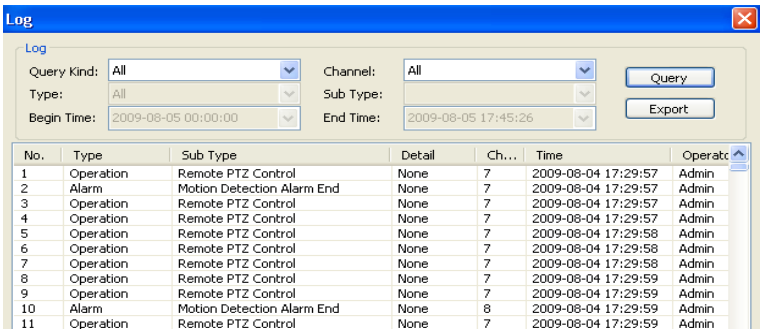
Please refer to Chapter 4.6 for playback downloaded MPEG4 video by Windows Media player.

6.6.3 Device Log

Click Logs, the screen of device logs will appear. There are four options for choosing: **All, according to time, according to type, according to time and type**.

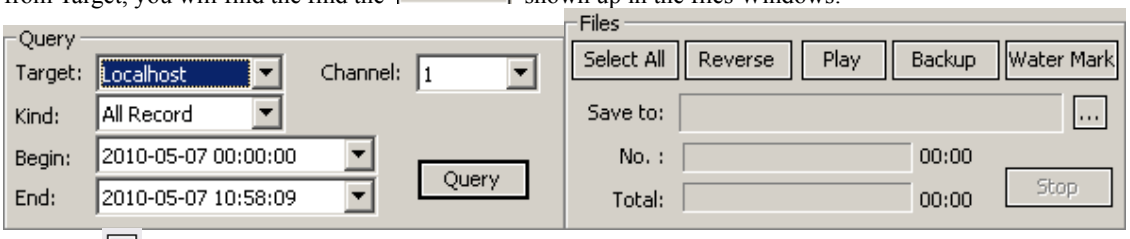
To search logs, please select the search mode and channel number needed first and then click Query to progress.

Click Export to export logs in html format.

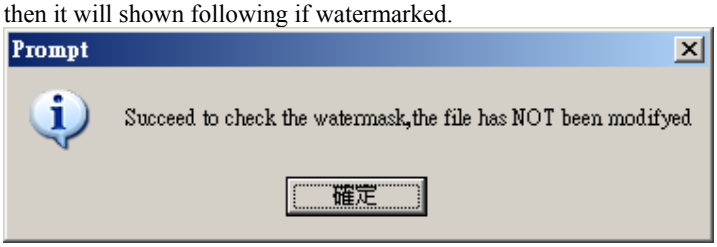

Log
Log
Query Kind: All
Channel: All
Type: All
Sub Type:
Begin Time: 2009-08-05 00:00:00
End Time: 2009-08-05 17:45:26
Query
Export
No. Type Sub Type Detail Ch... Time Operatc
1 Operation Remote PTZ Control None 7 2009-08-04 17:29:57 Admin
2 Alarm Motion Detection Alarm End None 7 2009-08-04 17:29:57 Admin
3 Operation Remote PTZ Control None 7 2009-08-04 17:29:57 Admin
4 Operation Remote PTZ Control None 7 2009-08-04 17:29:57 Admin
5 Operation Remote PTZ Control None 7 2009-08-04 17:29:58 Admin
6 Operation Remote PTZ Control None 7 2009-08-04 17:29:58 Admin
7 Operation Remote PTZ Control None 7 2009-08-04 17:29:58 Admin
8 Operation Remote PTZ Control None 7 2009-08-04 17:29:59 Admin
9 Operation Remote PTZ Control None 7 2009-08-04 17:29:59 Admin
10 Alarm Motion Detection Alarm End None 8 2009-08-04 17:29:59 Admin
11 Operation Remote PTZ Control None 7 2009-08-04 17:29:59 Admin

6.6.4 Water Mark Verification

All the record files for this DVR have watermark, but only MPEG4 format for verification. Select the "Local host" from Target, you will find the find the Water Mark shown up in the files Windows:

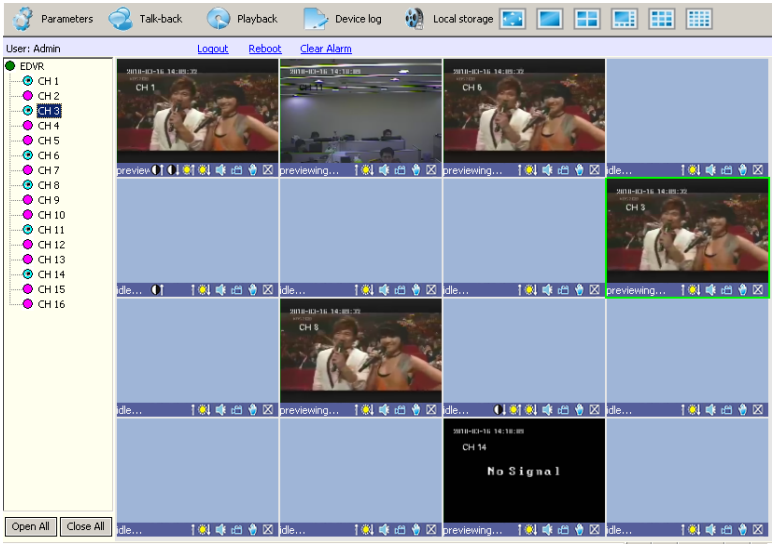


, click the ..., to select the **MPEG4 file** from your PC, which may comes from Network back up as **Chapter 6.6.2 Download Video Files**, or USB back up from local DVR(**Chapter 4.6 Video Backup**), Click Water Mark to verify it, then it will shown following if watermarked.



6.7 Channels allocation in Camera view window

When display some certain Camera view windows like , you can disable some channels display by clicking , and you can see it turns to be pink● from camera list(left side), move **the green cursor** to the fixed channel, and right click the pink● of the camera you want to display from the camera list(left side):



7. 3G/3.5G Mobile Phone/PDA Support

To streaming from 3/3.5G mobile phone or PDA, you have to open the mobile port of DVR, the default setting is 7050, which may be changed, please refer to 5.5.5 PPPoE/DDNS(Net- Second Page] or IE 6.5 Device Parameters Settings Server→Network setting, video system

For limited upload bandwidth of internet that DVRs connect, or limited streaming capability of some mobile phone/PDA, you have to adjust bandwidth of DVR to internet, please refer to 5.3.8 Dual Streaming for Network(Record- Advanced Setting) or 6.5 Device Parameters Settings - Channel→ Camera setting, Sub Bitstream, Subcode (from IE) for more details

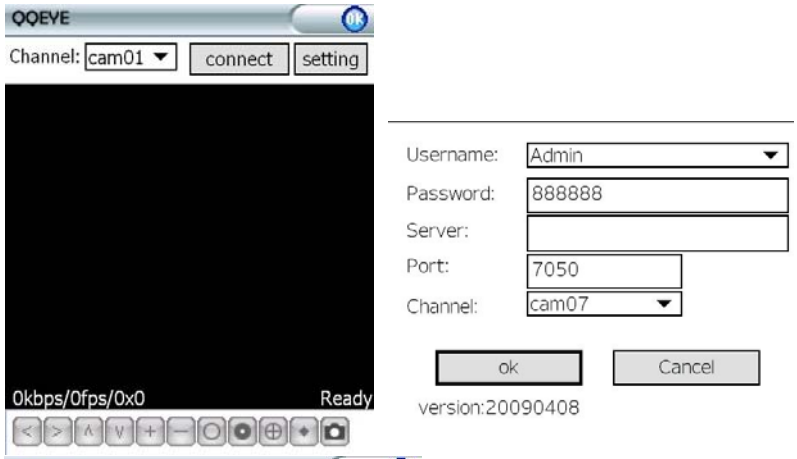
You may find the Windows Mobile 5.0/6.0/6.1 PDA(**amplayersetup.CAB**) and Symbian S60 3rd (**P2P_S60_3rd_0113.sis**) and S60 5th(**P2P_S60_5Th_20090112.sis**) softwares from the CD inside the DVR package or visit your DVR website to download by IE – http://xxx.xxxx.xxxx/download.html

Note: User's mobile phone must apply internet connection service at first, such as 3G or 3.5G service. Please contact mobile company for detail.

7. 1 Windows Mobile PDA

Open accessory CD and find the "**amplayersetup.CAB**" for the surveillance software.
Please refer to PDA user manual, copy *.cab into windows mobile pda
Double click on *.cab can start install software into PDA. After install completed, user can find QQEYE in the application list.

Execute QQEYE program and click setting to setup IP address of remote DVR.



Input user name 〖Admin〗and password. IP address of DVR and port:7050 for streaming data.
Click ok to save the setting.

In the main windows, click "connect" to login DVR and watch the steaming video from DVR.

At the bottom is the PTZ control and picture snapshot.

7. 2 Nokia/Samsung/LG Symbian S60 3rd/S60 5th Phones

Open accessory CD and find the "**P2P_S60_3rd_0113.sis**" or "**P2P_S60_5Th_20090112.sis"** mobile surveillance software according to Symbian OS S60 3rd or 5th. Please refer to user manual of mobile phone to install the software into mobile phone.

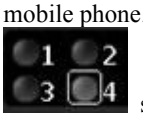
While install the software, must set "software installation -ALL", and "Online Certificate check - off", ex. Main menu --> Applications --> App. mgr. (application management) --> Options --> settings --> software installaion ,set ALL --> Online Certificate check , set off

After installation competed, user can find the QQEYE

icons at the application list.
Execute QQEYE, First step is configuring the IP address of DVR, username, password.

Click icon to show the setup windows,
Server Address: DVR IP address
Serer Port:: 7050
Username: 〖Admin〗
Password: By default are 888888
Save and return to main windows

Click ▶ icon to connect DVR immediately, after login DVR successfully, user can watch the remote video from mobile phone.



switch channel , click show another 4 channel list

Control PTZ camera direction, Zoom, Focus. , Iris.

Picture Snapshot.

Exit QQEYE

Mobile phone reference list:

Nokia 5730 XpressMusic	S60 3rd_FP2	11-Mar-09
Nokia N86 8MP	S60 3rd_FP2	17-Feb-09
Nokia E55	S60 3rd_FP2	16-Feb-09
Nokia E75	S60 3rd_FP2	16-Feb-09
Nokia 6710 Navigator	S60 3rd_FP2	16-Feb-09
Nokia 6720 Classic	S60 3rd_FP2	16-Feb-09
Nokia 5630 XpressMusic	S60 3rd_FP2	10-Feb-09
Nokia E63	S60 3rd_FP1	12-Nov-08
LG-KT615	S60 3rd_FP1	30-Oct-08
Samsung I7110	S60 3rd_FP2	20-Oct-08
Nokia N79	S60 3rd_FP2	21-Aug-08
Nokia N85	S60 3rd_FP2	21-Aug-08
Samsung INNOV8	S60 3rd_FP2	25-Jul-08
Nokia E66	S60 3rd_FP1	16-Jun-08
Nokia E71	S60 3rd_FP1	16-Jun-08
Samsung SGH-L870	S60 3rd_FP2	28-May-08
Nokia 5320 XpressMusic	S60 3rd_FP2	22-Apr-08
Samsung SGH-G810	S60 3rd_FP1	11-Feb-08
Nokia 6220	S60 3rd_FP2	11-Feb-08
Nokia N78	S60 3rd_FP2	11-Feb-08
Nokia N96	S60 3rd_FP2	11-Feb-08
Nokia 6210 Navigator	S60 3rd_FP2	11-Feb-08
LG-KT610	S60 3rd_FP1	10-Feb-08
Nokia N82	S60 3rd_FP1	14-Nov-07
Samsung SGH-i560	S60 3rd_FP1	16-Oct-07
Samsung SGH-i550	S60 3rd_FP1	15-Oct-07
Samsung SGH-i450	S60 3rd_FP1	14-Oct-07
Nokia E51	S60 3rd_FP1	18-Sep-07
Nokia N95 8GB	S60 3rd_FP1	29-Aug-07
Nokia N81	S60 3rd_FP1	29-Aug-07
Nokia N81 8GB	S60 3rd_FP1	29-Aug-07
Nokia 6121	S60 3rd_FP1	18-Jun-07
Samsung SGH-i400	S60 3rd_FP1	26-Apr-07
Nokia 6120	S60 3rd_FP1	17-Apr-07
Nokia 5700	S60 3rd_FP1	29-Mar-07
Nokia N77	S60 3rd_INIT	12-Feb-07
Nokia E90	S60 3rd_FP1	11-Feb-07
Nokia E61i	S60 3rd_INIT	10-Feb-07
Nokia E65	S60 3rd_INIT	09-Feb-07
Nokia 6110 Navigator	S60 3rd_FP1	08-Feb-07
Nokia N76	S60 3rd_FP1	08-Jan-07
Nokia N93i	S60 3rd_INIT	08-Jan-07
Nokia 6290	S60 3rd_FP1	28-Nov-06
LG KS10	S60 3rd_FP1	09-Oct-06
Samsung SGH-i520	S60 3rd_FP1	09-Oct-06
Nokia N75	S60 3rd_INIT	27-Sep-06
Nokia N95	S60 3rd_FP1	26-Sep-06
Nokia E62	S60 3rd_INIT	09-Sep-06
Nokia 5500 Sport	S60 3rd_INIT	09-May-06
Nokia N93	S60 3rd_INIT	09-Apr-06
Nokia N73	S60 3rd_INIT	09-Apr-06
Nokia N92	S60 3rd_INIT	09-Nov-05
Nokia N71	S60 3rd_INIT	09-Nov-05
Nokia N80	S60 3rd_INIT	09-Nov-05
Nokia E70	S60 3rd_INIT	09-Oct-05
Nokia E61	S60 3rd_INIT	09-Oct-05
Nokia E60	S60 3rd_INIT	09-Oct-05
Nokia 3250	S60 3rd_INIT	13-Sep-05
Nokia N91	S60 3rd_INIT	14-Apr-05

Symbian OS S60 5th Mobile Phone – Nokia 5800XM, N97, 5230, 5802XM, 5530XM and x6

7.3 3G/3.5G iPhone Series

Please use 2nd generation iPhone and go to their App Store, search the “APlayer”, download and install it, it is free;

Execute APlayer program and click to setup IP address of remote DVR as below right screenshot
Server IP: DVR IP address
Port: 7050 by defaut
Username: 〖Admin〗
Password: By default are 888888
Save and back to main windows

Click icon to connect DVR immediately, after login DVR successfully, user can watch the remote video from mobile phone; the other icons function are as follows:

switch channel，click show another 4 channel list

Control PTZ camera direction, Zoom, Focus, Iris.

Picture Snapshot.

Full Screen

8. Appendix

Appendix A-HDD Capacity/Recording Time Estimate

1) Calculate the maximum capacity of the build-in hard disk.

- **Timing Recording:**

Step 1: Calculate the maximum capacity of the hard disk needed in selected channel per hour, suppose as Si (MByte) (i is the channel number), and suppose the bit rate of the channel selected as D (Kbit/s). The formula of calculation is:

Si =（D*3600）/（8*1024）= D * 0.439453125 MB

Step 2: Confirm the storage time length, suppose as T hours. The total maximum capacity of the hard disk needed in selected channel for T hours, suppose as St is:

St = T * S1

Step 3: Confirm the total numbers of the channels, suppose as n. The total maximum capacity of the hard disk needed, suppose as Sc is:

Sc = S1 + S2 + … + Sn

Record Quality (Bit rate)	Frame Rate (PAL/NTSC)	HDD Capacity	Recording Time(days)		
			4CH	8CH	16CH
Best(768Kbps)	Full Frame Rate(30 or 25 CIF = 15 or 12.5 Half D1 = 7.5 or 6 D1)	500GB	15.8	7.9	3.9
High(640Kbps)			19.0	9.5	4.8
Middle(512Kbps)			23.7	11.9	5.9
Low(384Kbps)			31.6	15.8	7.9
Best(768Kbps)		750GB	23.7	11.9	5.9
High(640Kbps)			28.4	14.2	7.1
Middle(512Kbps)			35.6	17.8	8.9
Low(384Kbps)			47.4	23.7	11.8
Best(768Kbps)		1000GB	31.6	15.8	7.9
High(640Kbps)			37.9	19.0	9.5
Middle(512Kbps)			47.4	23.7	11.9
Low(384Kbps)			63.2	31.6	15.8
Best(768Kbps)		2000GB	63.2	31.6	15.8
High(640Kbps)			75.9	38.0	19.0
Middle(512Kbps)			94.8	47.4	23.8
Low(384Kbps)			126.4	63.2	31.6

Hard Disk capacity/recording time is only related to bite rate, neither Resolution, nor Frame rate

2) Calculate the compression bit rate for recording T hours.

- **Timing Recording**

Step 1: Suppose the capacity of the hard disk as S, the total numbers of the channel as n. The capacity of hard disk needed per channel supposed as Di is:

Di = S / n

Step 2: Suppose the total recording time as T hours. The capacity of the hard disk needed per hour per channel supposed as Dt is:

Dt = Di / T

Step 3: The bit rate of all the channels supposed as Dc is:

Dc = Dt *（8*1024）/ 3600 = Dt * 2.2756 （Kbit/s）

Appendix B– Compatible HDD List

The other brand or model, please test by yourselves

Item	Model Number	Size(GB)	Drive
WD	WD5001ABYS	500	SATA
WD	WD5000AVVS	500	SATA
WD	WD7500AACS	750	SATA
WD	WD10EADS	1000	SATA
WD	WD15EADS	1500	SATA
WD	WD20EVDS	2000	SATA
HITACHI	HDS721075KLA330	750	SATA
HITACHI	HDT721010SLA360	1000	SATA
Maxtor	6V16010	160	SATA
Seagate	ST3250310SV	250	SATA
Seagate	ST3500320SV, ST3500320AS	500	SATA
Seagate	ST31000528AS	1000	SATA
Seagate	ST31500341AS	1500	SATA
Seagate	ST32000542AS	2000	SATA
Samsung	HD161HJ	160	SATA
Samsung	HD501LJ	500	SATA

Appendix C– Compatible USB portable DVD Burner List

The other brand or model, please test by yourselves

* Sony DRX-S70U-R
* HUGE USB Slim Portable Optical Drive
* LG GE20LU10
* Lite On eSAU108
* Buffalo DVSM-P58U2/B

Appendix D– What is inside the CD

* DVR User Manual in the root
* Multiplex H264 DVR Utility -
  MP4Player – for back up MPEG4 files(USB, DVDRW, Internet) playback in PC
  WebOcxClean.dat - to delete the old Active X components from the PC used to remote access this DVR which upgraded by new software, please close IE before run it
* Mobile Phone software - Windows Mobile 5.0/6.0/6.1 PDA(**amplayersetup.CAB**), Symbian S60 3rd (**P2P_S60_3rd_0113.sis**) or S60 5th(**P2P_S60_5Th_20090112.sis**) softwares, you can download from the DVR by IE – http://xxx.xxxx.xxxx/download.html as well.
* CMS software and CMS manual in the \CMS\ subdirectory

Appendix E– What is inside the DVR package

- DVR device
- This user manual
- Installation CD
- Remote control
- Power adaptor with power cord
- Mouse (optional, depends on the model)
- Hard disk drive (optional, depends on the model) (if you would like to install Hard disk drive by yourself, please see **Appendix B** for the list of compatible HDDs)

Appendix F– Change Notice

The following changes are for **software version after 1.30xx.xxxx**, released date after 2010.03.02, as follows:

- Update Chapter 4.7 Play Backup Video on PC
- Change PTZ control GUI in Chapter 4.8
- Update Chapter 5.1 Menu Tree & Operate
- Add 5.2.7 Hard Disk Overwrite set up
- Add SEQ Display(Preview Cruise) in Chapter 5.2.8
- Add faceplate buttons/remote control operations in the following:
  Chapter 5.3.2 Record Schedule – schedule set up
  Chapter 5.4.6 Motion Detection & Region – motion region set up
  Chapter 5.4.7 Privacy Mask(Mosaic) – mask region set up
  Chapter 5.6.4 Alarm Setting(Schedule), Zoom Out and Hard Disk Full actions – alarm schedule set up
- Add Zoom out channels set up in Chapter 5.4.8 Motion, Video Loss and Channel Name and Chapter Chapter 5.6.3 Event Handling
- Update Auto Register in Chapter 5.5.5
- Update Chapter 5.5.6 E-Mail Server
- Add Hard Disk Full actions –Chapter 5.6.4 Alarm Setting(Schedule), Zoom Out and Hard Disk Full actions
- Add Chapter 6.7. Channels allocation in Camera view windows for IE
- Put "WebOcxClean.dat" file in CD – clear old Active X components if upgrade the new software to this DVR, please refer to Appendix D – What is inside the CD and Remote Access - > Before Logging On

The following changes are for **software version after 1.30xx.xxxx**, released date after 2010.04.12 as follows:

- Add Main Vide Output spec. in Chapter 1.1 Features
- Modify Fast forward playback speed in Chapter 4.5 Video Playback
- Change PTZ control GUI in Chapter 4.8
- Add DVR ID NUMBER in Chapter 5.2.8
- Add Chapter 6.2 Turn off UAC for Windows 7 and Vista
- Add AVI format for Network backup, please refer to Chapter 6.6.2 Download Video files
- Add Chapter 6.6.4 Water Mark Verification
- Add Symbian S60 5th and update S60 3rd mobile software, please refer to Chapter 7.2
- Modify Appendix A-Hard Capacity/Recording Time Estimate
- Add CMS software and CMS manual in the CD:\CMS\, and others – Appendix D

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